

STROPEL BROS.

Almanac
FOR
1903

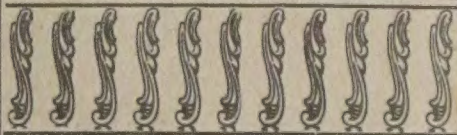
— EMBRACING —

THE DAYS, WEEKS AND MONTHS OF THE YEAR,
TOGETHER WITH THE CHANGES OF THE SEASONS

— AND —

A Condensed Cyclopedia of Useful
and Entertaining Information

AS each grain of sand its part of the seashore makes, so the oft' discovered truths of the past become the basis for a more thorough knowledge of the present as well as giving us a more enlightened view of the future, and we trust the gathering of the few facts and fancies as compiled in this book will prove of some lasting as well as momentary benefit to our friends and patrons.. . . .



Eclipses for 1903.

In the year 1903 there will be four eclipses, two of the sun and two of the moon.
I. An annular eclipse of the sun March 28th, invisible here, but visible in the Philippine Islands, Eastern Asia, a large portion of the northern Pacific Ocean and Alaska.

II. A partial eclipse of the moon, April 11th, partly visible here; the beginning visible generally in Africa, Europe, the western portions of Asia, and the eastern parts of South America; the ending visible generally in Africa, Europe, South America, and the eastern portions of North America. Time of the eclipse is as follows:

	Eastern Standard Time.		
Moon enters penumbra.....	11 d.	4 h.	26 m. P. M.
Moon enters shadow.....	11 d.	5 h.	34 m. P. M.
Middle of eclipse.....	11 d.	7 h.	13 m. P. M.
Moon leaves shadow.....	11 d.	8 h.	52 m. P. M.
Moon leaves penumbra.....	11 d.	10 h.	0 m. P. M.

For Central Time deduct one hour.

III. A total eclipse of the sun September 20th, invisible here; visible to the extreme southern part of Australia, and to the greater portion of the Indian Ocean.

IV. A partial eclipse of the moon October 6th, not visible here, but the beginning visible generally in Africa and the Pacific Ocean; the ending visible generally in Africa, the eastern portions of Europe and the Pacific Ocean.

The Seasons for 1903.

Vernal Equinox (spring begins).....	March.....	21 d.	2 h. P. M.
Summer Solstice (summer begins).....	June.....	22 d.	10 h. A. M.
Autumnal Equinox (autumn begins).....	September.....	24 d.	1 h. A. M.
Winter Solstice (winter begins).....	December.....	22 d.	7 h. P. M.



Morning and Evening Stars for 1903.

The planet Venus (♀) begins as evening star and continues as such until September 17th, after which date she will be morning star to the end of the year.

The planet Mars (♂) is morning star until March 29th, and then evening star the balance of the year.

The planet Jupiter (♃) will be evening star until February 19th, then morning star until September 12th, and then evening star to end of the year.

The planet Saturn (♄) is evening star until January 21st, then morning star till July 3rd, and then evening star the rest of the year.

Chronological Eras.

The year 1903 comprises the latter part of the 127th and the beginning of the 128th year of American independence, and corresponds to the year 6616 of the Julian Period; the year 5663-5664 of the Jewish Era—the Jewish new year 5664 begins at sunset on September 21st, 1903; the year 2656 since the foundation of Rome, according to Varro; the year 2563 of the Japanese Era, and to the 36th year of the period entitled "Meiji." The year 1321 of the Mohammedan Era, or the Era of the Hegira, begins on the 30th day of March, 1903. The 1st day of January, 1903, is the 2,416,116th day since the commencement of the Julian Period.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F.Q.	6 4 56 A.	6 4 56 A.	6 3 56 A.
F.M.	13 9 17 M.	13 9 17 M.	13 8 17 M.
L.Q.	20 6 49 M.	20 6 49 M.	20 5 49 M.
N.M.	28 11 39 M.	28 11 39 M.	28 10 39 M.

LATITUDE
Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

LATITUDE
Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

HISTORICAL EVENTS.

D. M.	D. W.		MOON'S SIGNS.	Sun rises.	Sun sets.	Moon sets.	SUN SLOW.	Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	M.	H. M.	H. M.	H. M.
1	Th	Circumcision.	♊	7 25	4 43	7 35	3	7 3	5 5	7 47
2	Fr	♊ ♋ ♌.	♊	7 25	4 44	8 32	4	7 3	5 6	8 42
3	Sa	⊕ in perihelion.	♊	7 25	4 45	9 34	4	7 3	5 6	9 39

1. 2d Sunday after Christmas. Luke 2. 9h. 21m. Day's Length, 10h. 4m.

4	Su	Arnold inva'd Va., 1781.	♊	7 25	4 46	10 35	5	7 3	5 7	10 35
5	M	♊ ♋ ♌.	♊	7 25	4 47	11 32	5	7 3	5 8	11 30
6	Tu	6th. Epiphany.	♋	7 25	4 48	morn	6	7 3	5 9	morn
7	W	Aguinaldo's proc., '99	♋	7 25	4 49	0 38	6	7 3	5 10	0 31
8	Th	♀ in aphelion	♋	7 25	4 50	1 43	7	7 3	5 10	1 32
9	Fr	♊ ♋ ♌.	♋	7 24	4 51	2 50	7	7 3	5 11	2 35
10	Sa	Frank Leslie died, 1880.	♋	7 24	4 52	3 58	8	7 3	5 12	3 40

2. 1st Sunday after Epiphany. Luke 2. 9h. 29m. Day's Length, 10h. 11m.

11	Su	Treaty Arb. signed, 1897.	♋	7 24	4 53	5 5	8	7 2	5 13	4 45
12	M	♊ ♋ ♌. ♌ in perigee.	♋	7 24	4 54	6 6	8	7 2	5 14	5 46
13	Tu	13th. ♂ in aphelion.	♋	7 23	4 55	rises.	9	7 2	5 15	rises.
14	W	Com. Maury b., 1806.	♋	7 23	4 56	6 39	9	7 2	5 16	6 52
15	Th	Battle Fort Fisher, 1865.	♋	7 23	4 57	7 52	9	7 2	5 16	8 0
16	Fr	Ex-Pres. Hayes d., 1893.	♋	7 22	4 58	9 3	10	7 2	5 17	9 7
17	Sa	♋ gr. elong. E. 18° 46'.	♋	7 22	4 59	10 9	10	7 2	5 18	10 9

3. 2d Sunday after Epiphany. John 2. 9h. 40m. Day's Length, 10h. 17m.

18	Su	♊ ♋ ♌. ♌ gr. libration W.	♋	7 21	5 1	11 12	10	7 2	5 19	11 7
19	M	♋ in ♋. [died, 1891.	♋	7 21	5 2	morn	11	7 1	5 20	morn
20	Tu	20th. King Kalakua	♋	7 20	5 3	0 17	11	7 1	5 21	0 7
21	W	♊ ♋ ♌.	♋	7 20	5 4	1 18	11	7 1	5 22	1 6
22	Th	Lamar died, 1893.	♋	7 19	5 5	2 17	12	7 1	5 23	2 1
23	Fr	♋ in perihelion.	♋	7 18	5 7	3 12	12	7 0	5 24	2 54
24	Sa	♊ ♋ ♌.	♋	7 18	5 8	4 5	12	7 0	5 25	3 45

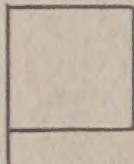
4. 3d Sunday after Epiphany. Matt. 8. 9h. 52m. Day's Length, 10h. 26m.

25	Su	♊ ♋ ♌. ♌ in apogee.	♋	7 17	5 9	4 54	12	7 0	5 26	4 34
26	M	Dr. Jenner died, 1823.	♋	7 16	5 10	5 38	13	6 59	5 27	5 19
27	Tu	James G. Blaine d., 1885.	♋	7 16	5 11	6 19	13	6 59	5 28	6 1
28	W	28th. ♂ ♋ ♌.	♋	7 15	5 13	sets	13	6 59	5 29	sets
29	Th	♊ ♋ ♌.	♋	7 14	5 14	6 27	13	6 58	5 30	6 36
30	Fr	♊ ♋ ♌. [Housc, '98.	♋	7 13	5 15	7 27	13	6 57	5 31	7 33
31	Sa	Free silver beaten in	♋	7 12	5 16	8 28	14	6 56	5 32	8 30

Weather Signals

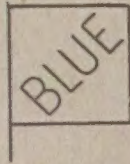
The flags adopted for weather signals by the bureau, are five and of the form and color indicated below:

No. 1
White Flag.



Clear or Fair.

No. 2
Blue Flag.



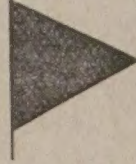
Rain or Snow.

No. 3
Half White
Half Blue.



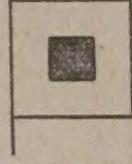
Local Rains.

No. 4
Black Triangular Flag.



Temperature.

No. 5
White Flag
Black Square.



Cold Wave.

No. 1, white flag, indicates clear or fair weather. No. 2, blue flag, indicates rain or snow. No. 3, white and blue flag, (parallel bars of white and blue), indicates that local rains or showers will occur and that the rainfall will not be general. No. 4, black triangular flag, refers to temperature; when placed above Nos. 1, 2 or 3, it indicates warmer weather; when placed below Nos. 1, 2 or 3, it indicates colder weather; when not displayed, the indications are that the temperature will remain stationary, or that the change in the temperature will not vary more than 5° from the temperature of the same hour of the preceding day, from June to August, inclusive, and not more than 7° from November to March, inclusive, and not more than 6° for the remaining months of the year. No. 5, white flag with black square in the center, indicates the approach of a sudden and decided fall in temperature, and is usually ordered at least 24 hours in advance of the cold wave. When No. 5 is displayed, No. 4 is always omitted.

When displayed on poles, the signals are arranged to read downward; when displayed from horizontal supports, a small streamer is attached to indicate the point from which the signals are to be read.

Interpretation of Displays.

- No. 1, alone, indicates fair weather, stationary temperature.
- No. 2, alone, indicates rain or snow, stationary temperature.
- No. 3, alone, indicates local rain, stationary temperature.
- No. 1, with No. 4 above it, indicates fair weather, warmer.
- No. 1, with No. 4 below it, indicates fair weather, colder.
- No. 2, with No. 4 above it, indicates warmer weather, rain or snow.
- No. 2, with No. 4 below it, indicates colder weather, rain or snow.
- No. 3, with No. 4 above it, indicates warmer weather with local rains.
- No. 3, with No. 4 below it, indicates colder weather with local rains.
- No. 1, with No. 5, indicates fair weather, cold wave.
- No. 2, with No. 5, indicates wet weather, cold wave.

Storm and Wind Signals.

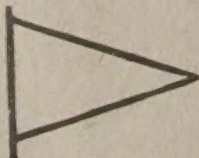
The flags adopted by the Weather Bureau to indicate storms and the direction of the wind, are four in number, as follows:

Red, Black Center.



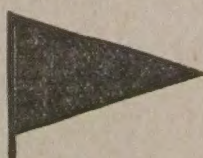
Storm.

White Pennant.



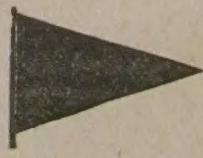
Westerly Winds.
When displayed in
connection with
storm signal.

Red Pennant.



Easterly Winds.
When displayed in
connection with
storm signal.

Red or White Pen't.



Information Signal.
When displayed
alone.

A red flag with a black center indicates that a storm of marked violence is expected.

The pennants displayed with the flags indicate the direction of the wind; red, easterly (from the northeast to south); white, westerly (from southwest to north). The pennant above the flag indicates that the wind is expected to blow from the northerly quadrant; below, from the southerly quadrant.



MOON'S PHASES.

	BOSTON		NEW YORK		CHICAGO	
	D.	H. M.	D.	H. M.	D.	H. M.
F.Q.	5	5 12 M.	5	5 12 M.	5	4 12 M.
F.M.	11	7 58 A.	11	7 58 A.	11	6 58 A.
L.Q.	19	1 23 M.	19	1 23 M.	19	0 23 M.
N.M.	27	5 20 M.	27	5 20 M.	27	4 20 M.
D. M.	D. W.	HISTORICAL EVENTS.				

MOON'S SIGNS.

LATITUDE
Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.

SUN SLOW.

LATITUDE
Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.

5. 4th Sunday after Epiphany. Matt. 8. 10h. 6m. Day's Length, 10h. 37m.

1 Su	First Presid'l elec'n, 1789.	☾	7 11	5 17	9 26	14	6 56	5 33	9 25
2 M	♂ ♀ ☉. Inferior.	☾	7 10	5 18	10 28	14	6 55	5 34	10 22
3 Tu	♂ gr. hel. lat. N.	☾	7 9	5 20	11 32	14	6 54	5 34	11 23
4 W	Revolut'y war ends, 1783	☾	7 8	5 21	morn	14	6 54	5 35	morn
5 Th	☾ 5th. Brazil tre'y, 1891.	☾	7 7	5 22	0 38	14	6 53	5 36	0 24
6 Fr	☾ Ft. Henry cap., 1862.	☾	7 6	5 24	1 43	14	6 52	5 37	1 26
7 Sa	Dickens born, 1812.	☾	7 5	5 25	2 47	14	6 51	5 38	2 28

6. Septuagesima Sunday. Matt. 20. 10h. 22m. Day's Length, 10h. 49m.

8 Su	♂ ♀ ☉.	☾	7 4	5 26	3 50	14	6 50	5 39	3 30
9 M	Luetgert convicted, 1898.	☾	7 2	5 27	4 46	14	6 50	5 40	4 27
10 Tu	☉ in perigee.	☾	7 1	5 28	5 37	14	6 49	5 41	5 21
11 W	☾ 11th. D. Boone b. 1735	☾	7 0	5 29	rises.	14	6 48	5 42	rises.
12 Th	☾ DeWitt Clinton died, [1828.]	☾	6 59	5 31	6 37	14	6 47	5 43	6 44
13 Fr	♂ ♀ ♄.	☾	6 57	5 32	7 49	14	6 46	5 44	7 50
14 Sa	♂ stationary.	☾	6 56	5 33	8 53	14	6 45	5 44	8 51

7. Sexagesima Sunday. Luke 8. 10h. 40m. Day's Length, 11h. 1m.

15 Su	♂ ♀ ☉.	☾	6 55	5 35	10 1	14	6 44	5 45	9 53
16 M	☉ gr. libration W.	☾	6 53	5 36	11 4	14	6 43	5 46	10 53
17 Tu	Judge Buckner of Ky. d.,	☾	6 52	5 37	morn	14	6 42	5 47	11 51
18 W	♂ stationary. [1900.]	☾	6 51	5 38	0 6	14	6 41	5 48	morn
19 Th	☾ 19th. ♂ ♄ ☉.	☾	6 50	5 39	1 4	14	6 40	5 49	0 47
20 Fr	☾ Gen. Beauregard d.,	☾	6 49	5 40	1 58	14	6 39	5 50	1 39
21 Sa	♂ ☉ ☉. [1893.]	☾	6 48	5 43	2 48	14	6 38	5 50	2 29

8. Quinquagesima Sunday. Luke 18. 10h. 56m. Day's Length, 11h. 14m.

22 Su	☉ in apogee.	☾	6 47	5 43	3 34	14	6 37	5 51	3 15
23 M	J. Q. Adams died, 1848.	☾	6 45	5 45	4 16	14	6 36	5 52	3 58
24 Tu	Shrove Tuesday. ♂ ♄ ☉.	☾	6 44	5 46	4 55	13	6 35	5 53	4 39
25 W	Ash Wednesday.	☾	6 43	5 48	5 28	13	6 34	5 54	5 15
26 Th	♂ ♄ ☉. ♀ in ☉. [1796.]	☾	6 42	5 49	6 1	13	6 32	5 55	5 52
27 Fr	☾ 27th. Lisbon earthq.,	☾	6 40	5 50	sets	13	6 31	5 55	sets
28 Sa	☾ Bat. Lg. Island, 1776.	☾	6 37	5 51	7 18	13	6 30	5 56	7 18

Weather Forecasts, 1903.

For January.

1st to 3rd—**MILD PERIOD.** Generally fair, with frosty nights over Western and Central States. Cloudy and threatening weather over Gulf and South Atlantic States.

4th to 6th—**STORM WAVE.** Rain, sleet and snow in Mississippi and Ohio River Valleys. Snow blockades in Northwest and upper Lake region. Temperature 20° below zero at Helena, 12° below at Omaha, 4° below at Springfield, Ill. and 0° at Cincinnati.

7th to 9th—**RAIN PERIOD.** Dangerous gales and heavy rainfall over Western and Southwestern States. Loss of life and shipping on Great Lakes. Showery in Tennessee, Kentucky and the Carolinas.

10th to 14th—**MILD PERIOD.** Clearing weather over Western, Northwestern States and over Lake region. Damp, foggy and generally threatening weather over Gulf and South Atlantic States.

15th to 19th—**STORM WAVE.** Heavy snow and blockades in upper Mississippi Valley and over Lake region. Heavy rainfall in Southern and South Atlantic States.

20th to 24th—**COLD WAVE.** Cold, freezing weather over the Northwest and Central West. Ice gorges in upper Missouri and Mississippi rivers.

25th to 27th—**BLUSTERY PERIOD.** Strong gales at all points West and South. Loss to shipping on the Great Lakes and upper Atlantic seaboard.

28th to 31st—**WARM WAVE.** Mild, soft weather in all sections south of the parallel of 40°. Slush and mud general in Central and Middle Atlantic States.

The temperature will be above normal at all points except in Rocky Mountain region and the Northwest. The precipitation will be deficient everywhere except in Gulf States and along North Pacific coast, where it will be excessive.

For February.

1st to 4th—**MILD PERIOD.** Pleasant weather for February over South-western, Central and Middle Atlantic States. Threatening over Great Lakes, New York and New England.

5th to 8th—**COLD WAVE.** Low temperature in Northwest, Upper Lake Region and Canadian Provinces. Fair to foggy weather in Lower Mississippi Valley and in Gulf and South Atlantic States.

9th to 13th—**STORM PERIOD.** Heavy storms of rain, sleet and snow over Central States. Destructive gales over Great Lakes and throughout Middle Atlantic States.

14th to 17th—**COLD PERIOD.** Generally backward weather throughout the Northwest. Squally conditions in Central, Middle Atlantic and New England States.

18th to 22nd—**COLD WAVE.** Very cold weather at all points in the North and West. Temperature 20° below zero at Helena, 18° below at Bismark, 14° below at St. Paul, 10° below at Davenport, 5° below at Springfield, Ill., 2° below at Cincinnati, and 0° at Parkersburg.

23rd to 25th—**MILD PERIOD.** Fair to changeable weather at all points South and Southwest. Clear, crisp, cold nights and sunshiny days in

Northwest, Lake Region and New England States.

26th to 28th—**STORM WAVE.** Severe storms with snow blockades over Rocky Mountain region and in Central West. High winds with squally conditions along Gulf and South Atlantic States.

The temperature will be above normal west of the Mississippi river but will be below normal elsewhere. The precipitation will show marked deficiencies at all points except along the Gulf and South Atlantic coasts.

For March.

1st to 3rd—**COLD PERIOD.** Cold Northwestern winds prevailing in western half of the country. Clear, fair weather in Central and Northeast portions. Damp, foggy conditions over Gulf and South Atlantic States.

4th to 7th—**STORM WAVE.** Rough, stormy and generally March-like weather in all sections. Great loss to shipping on Great Lakes and along the North Atlantic Coast.

8th to 11th—**RAIN PERIOD.** Heavy rains with disastrous floods in South and Southwest portions. Squally weather over upper Mississippi Valley and Lake Region.

12th to 16th—**COLD WAVE.** Cold weather for March in West and Southwest. Heavy frosts and freezing weather as far south as Tennessee and the Carolinas. Temperature at 0° at Helena, 10° above at Cheyenne, 18° above at Denver, 22° at Kansas City, 25° at St. Louis, 26° at Nashville and Chattanooga 30°.

17th to 21st—**MILD PERIOD.** Fine, genial weather in Southwest, Lower Mississippi Valley and South Atlantic States. Foggy conditions over Great Lakes and New England coast.

22d to 26th—**STORM WAVE.** Stormy conditions with much snow and bluster in Northwest. Heavy gales on Great Lakes and along Atlantic seaboard.

27th to 31st—**WARM WAVE.** Generally fair to warm weather over all sections south of parallel 40. Threatening conditions in Northwest and upper Lake region. Temperature 75° at Denver, 80° at Wichita, 80° at Little Rock, 84° at Chattanooga and 88° at Savannah.

The monthly average will be below normal for all March temperatures while the rainfall will remain at normal except over the Ohio River basin where it will be excessive.

For April.

1st to 4th—**COOL WAVE.** Killing frosts and freezing weather in Northwest, Central Mississippi and Ohio River Valleys. Temperature 10° at Bismark, 15° at Omaha, 18° at Davenport and 24° at Springfield, Ill.

5th to 9th—**STORM WAVE.** Unsettled, stormy weather in Southwest. Tornado conditions in Texas and Oklahoma. Heavy rains in Middle Atlantic and New England States.

10th to 14th—**MILD SOFT PERIOD.** Pleasant and generally Spring-like weather in all sections. Foggy conditions in Great Lakes and over New England.

15th to 18th—**THUNDER STORMS.** Damaging thunder storms with wind and hail, at many points in the Southwest. Much electrical activity in Tennessee, Kentucky and the Virginias.



MOON'S PHASES.										MOON'S SIGNS.	LATITUDE						
BOSTON			NEW YORK			CHICAGO			Of New York City, N. England, N. Jersey, Conn., Pa., Ohio, Ind., Ill., Neb. and N. Cal.				Of Charleston, N. Car., Miss., Ga., Ala., Arkansas, New Mexico and S. Cal.				
F.Q.	D.	H. M.	F.Q.	D.	H. M.	F.Q.	D.	H. M.	Sun rises.		Sun sets.	Moon sets.	Sun rises.	Sun sets.	Moon sets.		
L.Q.	13	7 13 M.	L.Q.	13	7 13 M.	L.Q.	13	6 13 M.	H. M.		H. M.	H. M.	H. M.	H. M.	H. M.		
N.M.	28	8 26 A.	N.M.	28	8 26 A.	N.M.	28	7 26 A.	M.		M.	M.	M.	M.	M.		
D.	D.	HISTORICAL EVENTS.										M.					
M.	W.																
9. Quadragesima Sunday. Matt. 4. 11h. 17m. Day's Length, 11h. 28m.																	
1 Su	♂ ♀ ☾.	☾	6 35	5 52	8 21	13	6 29	5 57	8 17								
2 M	☾ gr. libration E.	☾	6 33	5 53	9 25	12	6 28	5 58	9 17								
3 Tu	Colorado admitted, 1875.	☾	6 31	5 54	10 31	12	6 27	5 59	10 18								
4 W	Ember Day.	☾	6 29	5 55	11 35	12	6 25	5 59	11 20								
5 Th	Spain dem. recall Lee, '98.	☾	6 28	5 56	morn	12	6 24	6 0	morn								
6 Fr	6th. Ember Day,	☾	6 26	5 58	0 39	12	6 23	6 1	0 20								
7 Sa	♂ ☾ ☾. Ember Day.	☾	6 25	5 59	1 41	11	6 22	6 2	1 21								
10. 2d Sunday in Lent. Matt. 15. 11h. 37m. Day's Length, 11h. 42m.																	
8 Su	♂ in aphelion.	☾	6 23	6 0	2 37	11	6 20	6 2	2 18								
9 M	Bat. Hampton Rds., '62.	☾	6 21	6 1	3 28	11	6 19	6 3	3 11								
10 Tu	☾ in perigee.	☾	6 19	6 2	4 15	11	6 18	6 4	4 1								
11 W	Chas. Sumner died, 1874.	☾	6 18	6 3	4 56	10	6 16	6 5	4 46								
12 Th	☾ stationary.	☾	6 16	6 4	5 33	10	6 15	6 5	5 27								
13 Fr	13th. Str. President	☾	6 15	6 5	rises.	10	6 14	6 6	rises.								
14 Sa	♂ ☾ ☾. [lost, 1841.	☾	6 13	6 7	7 39	10	6 13	6 7	7 34								
11. 3d Sunday in Lent. Luke 11. 11h. 57m. Day's Length, 11h. 57m.																	
15 Su	Jackson born, 1767.	☾	6 11	6 8	8 45	9	6 11	6 8	8 36								
16 M	☾ gr. libration W.	☾	6 10	6 9	9 49	9	6 10	6 8	9 37								
17 Tu	St. Patrick. ☾ ☾ ☾.	☾	6 8	6 10	10 50	9	6 9	6 9	10 34								
18 W	♂ ☾ ☾.	☾	6 6	6 11	11 47	8	6 7	6 10	11 29								
19 Th	Yale College founded 1700	☾	6 5	6 12	morn	8	6 6	6 11	morn								
20 Fr	20th. ☾ ☾ ☾.	☾	6 3	6 13	0 40	8	6 5	6 11	0 21								
21 Sa	☾ ☾ ☾. Spring beg.	☾	6 1	6 14	1 28	8	6 4	6 12	1 9								
12. 4th Sunday in Lent. John 6. 12h. 15m. Day's Length, 12h. 11m.																	
22 Su	☾ ☾ ☾. ☾ in apogee.	☾	6 0	6 15	2 12	7	6 2	6 13	1 53								
23 M	LaPlace born, 1749.	☾	5 58	6 16	2 50	7	6 1	6 13	2 34								
24 Tu	♂ ☾ ☾.	☾	5 56	6 17	3 27	7	6 0	6 14	3 13								
25 W	Annunciation.	☾	5 55	6 18	4 0	6	5 58	6 15	3 50								
26 Th	♂ ☾ ☾.	☾	5 53	6 19	4 31	6	5 57	6 15	4 23								
27 Fr	♂ ☾ ☾. [lib. E.	☾	5 51	6 20	5 0	6	5 56	6 16	4 57								
28 Sa	☾ ☾ ☾. ☾ in ☾. ☾ gr.	☾	5 50	6 21	5 32	5	5 54	6 17	5 33								
13. 5th Sunday in Lent. John 8. 12h. 34m. Day's Length, 12h. 25m.																	
29 Su	♂ ☾ ☾.	☾	5 48	6 22	sets	5	5 53	6 18	sets								
30 M	Crimean war ends, 1856.	☾	5 46	6 23	8 20	5	5 52	6 18	8 9								
31 Tu	♂ ☾ ☾.	☾	5 45	6 24	9 28	4	5 50	6 19	9 13								

19th to 23rd—WARM WAVE. High temperature for April over Southwest and Middle West. Temperature 94° at Armadillo, 92° at Wichita, 88° at Kansas City, 85° at Omaha and 84° at St. Louis.

24th to 27th—STORM WAVE. Thunder storms and tornadoes in Central, Western and Southern States. Great loss to life and property in Kansas, Missouri, Iowa and Illinois.

28th to 30th—RAIN PERIOD. Generally cloudy and stormy conditions prevailing over Northwest, Central Mississippi and Ohio River Valleys. High waters in Iowa, Missouri, Tennessee, Kentucky and the Carolinas.

43 The month will be somewhat cooler than the average April. The rainfall will be about the average except in the Mississippi Valley States where there will be some excesses.

For May.

1st to 3rd—THUNDER STORMS. Thunder storms over Lake region, Middle Atlantic and New England States. General rains in Central Mississippi and Ohio River Valleys.

4th to 7th—COOL PERIOD. Sharp frosts in Northwest portion with cool nights in all sections west and east. Temperature 45° at Minneapolis, 48° at Davenport, 50° at Springfield, Ill., 52° at Indianapolis, 48° at Pittsburg and 50° at Harrisburg.

8th to 12th—SULTRY WAVE. Great heat at all points in South Atlantic and Middle Atlantic States. Temperature 95° at Savannah, 94° at Raleigh, 92° at Lynchburg, 90° at Washington, 90° at Philadelphia and 91° at New York.

13th to 16th—STORM PERIOD. Severe thunder showers in lower Mississippi Valley, Gulf and Lower Atlantic seaboard. Heavy rains and washouts in Tennessee, Kentucky and Ohio.

17th to 22nd—RAIN PERIOD. Heavy rainfall in Arkansas, Missouri, Illinois and Indiana. Great loss to life and property from lightning, hail and flood.

23rd to 26th—THUNDER STORMS. Destructive hail and lightning in the Dakotas, Minnesota and Iowa. Great loss to crops from hail and flood.

27th to 31st—WARM WAVE. Hot and dry in Texas, Oklahoma, Western Kansas and Nebraska. Prostrating heat at all points West and Southwest. Want of rain felt in Gulf and South Atlantic States.

44 The month will be warmer than the average. The rainfall will be deficient in the extreme South and Southwest but greatly in excess in Central and Eastern half of the country.

For June.

1st to 3rd—DAMP, FOGGY PERIOD. Generally cloudy, foggy weather prevailing over upper Mississippi Valley, the Lake region and the Middle Atlantic States. Thunder showers throughout Ohio river basin.

4th to 8th—STORM WAVE. Heavy hail and thunder storms at points west of the Mississippi river. Fine, seasonable weather over Central and Middle Atlantic States. Light frosts in North Dakota, Minnesota and Wisconsin.

9th to 12th—THUNDER STORMS. Generally stormy conditions along Atlantic coast and Appalachian region. Great damage to crops, building, forest and orchard trees in Georgia, Alabama and Mississippi.

13th to 17th—COOL WAVE. Mild, seasonable weather at all points South and Southwest. Drouthy conditions in Texas, Oklahoma, Kansas and Nebraska.

18th to 22nd—HEAVY RAIN PERIOD. Destructive thunder storms in Missouri, Illinois, Kentucky and Ohio. Heavy rainfalls in the Virginias, Maryland, Pennsylvania and New Jersey.

23rd to 26th—WARM WAVE. High range of temperature at all points east and west. Temperature 100° at Santa Fe, 98° at Wichita, 96° at Kansas City, 95° at St. Louis, 94 at Louisville,

96° at Columbus, 94° at Pittsburg, 96° at Baltimore and 94° at New York.

27th to 30th—STORM WAVE. Heavy hail and rain storms in Central West and Northwest. Tornadoes in Missouri, Kentucky and Ohio.

45 The temperature will be about the average except in southern portions where it will be slightly below normal. The rainfall will be heaviest in Florida and South Atlantic slope.

For July.

1st to 4th—HOT WAVE. Advanced heat from Georgia to New Mexico. General prostration from hot wave over Ohio and Tennessee River Valleys and the Atlantic slope.

5th to 9th—GREAT STORM WAVE. Destructive thunder and hail over Lower Mississippi Valley. Heavy rain and floods in Mississippi, Alabama, Tennessee and Kentucky.

10th to 14th—WARM PERIOD. Drouthy conditions in Northwest and over Canadian Provinces and upper Lake region. Hot and sultry over Central, Gulf and South Atlantic States.

15th to 19th—STORM WAVE. Storms of wind, rain and hail general in Kentucky, Tennessee, the Carolinas and the Virginias. Heavy thunder storms in Illinois, Indiana, Ohio and Pennsylvania.

20th to 24th—COOL PERIOD. Cool nights over Central and Eastern sections. Seasonable weather throughout Middle Atlantic and New England States. Drouth in extreme West and Northwest.

25th to 27th—TORNADO PERIOD. Damaging wind storms and tornadoes in Louisiana, Mississippi, Alabama and Georgia. Destructive hail in Iowa, Minnesota and the Dakotas. Heavy rainfall in Central Mississippi and Ohio River Valleys.

28th to 31st—SULTRY PERIOD. Intense heat with great prostration from sunstroke in Southwestern, Central and Middle Atlantic States. Temperature 103° at Ft. Smith, 100° at Vicksburg, 98° at Chattanooga, 100° at Cincinnati, 99° at Pittsburg and 98° at Philadelphia.

46 Both the temperature and rainfall will be at about the usual July normals, except in Tennessee and the Carolinas where there will be some marked excesses in rainfall.

For August.

1st to 4th—THUNDER STORMS. Violent thunder storms in Ohio and Tennessee River Valleys. General rains in Middle Atlantic States. Destructive rain and hail in Wisconsin, Minnesota and the Dakotas.

5th to 8th—COOL PERIOD. Cool nights in northwest and in upper Mississippi Valley. Seasonable weather at all points east of the Mississippi river.

9th to 12th—STORM WAVE. General electrical activity over the Northwest, the Lake region and Middle Atlantic States. Dangerous gales on Lake and New England coasts. Heavy loss to life and property from flood and lightning.

13th to 16th—TORNADO STORMS. Heavy rainfall in Missouri, Iowa, Illinois, and in Pennsylvania, New York and New England. Rain in California.

17th to 21st—GREAT HEAT. High range of temperature at all points West and South. Temperature 104° at Wichita, 103° at Kansas City, 100° at St. Louis, 105° at Little Rock, 101° at Nashville, 102° at Augusta and 100° at Charleston.

22nd to 26th—THUNDER STORMS. Rain storms with severe thunder and lightning in Wisconsin, Illinois, Indiana and Kentucky. Destructive rain and wind in Texas.

27th to 31st—DROUTH PERIOD. Cool nights in Montana, the Dakotas and Minnesota. Dry, dusty weather in most sections west of the Mississippi river. Want of rain felt in Gulf States and Lower Mississippi Valley.

47 This is likely to be the hottest August on record for many years. The rainfall will also show marked deficiencies in most sections.



MOON'S PHASES.										LATITUDE										LATITUDE									
BOSTON			NEW YORK			CHICAGO			MOON'S SIGNS.	Of New York City, N. England, N. Jersey, Conn., Pa., Ohio, Ind., Ill., Neb. and N. Cal.				Of Charleston, N. Car., Miss., Ga., Ala., Arkansas, New Mexico and S. Cal.															
D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	Sun rises.		Sun sets.	Moon sets.	Sun rises.	Sun sets.	Moon sets.	Sun rises.	Sun sets.	Moon sets.												
F. Q.	4	8 51 A.	4	8 51 A.	4	7 51 A.	4	7 51 A.		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.												
F. M.	11	7 18 A.	11	7 18 A.	11	6 18 A.	11	6 18 A.																					
L. Q.	19	4 30 A.	19	4 30 A.	19	3 30 A.	19	3 30 A.																					
N. M.	27	8 31 M.	27	8 31 M.	27	7 31 M.	27	7 31 M.																					
D. M.	D. W.	HISTORICAL EVENTS.																											
1 W		Bismarck born, 1815.						♈	5 43	6 25	10 32	4	5 40	6 20	10 14														
2 Th		Jefferson born, 1743.						♉	5 41	6 26	11 34	4	5 48	6 20	11 15														
3 Fr		♂ ♀ ☾. [men, 1900.						♊	5 40	6 27	morn	4	5 45	6 21	morn														
4 Sa		♂ 4th. Boers cap. 500						♋	5 38	6 28	0 33	3	5 45	6 22	0 14														
14. Palm Sunday. Matt. 27. 12h. 53m. Day's Length, 12h. 38m.																													
5 Su		☾ in perigee. [1862.						♌	5 36	6 29	1 26	3	5 44	6 22	1 8														
6 M		Gen. A.S. Johnston kill'd,						♍	5 35	6 30	2 12	3	5 42	6 23	1 57														
7 Tu		Channing born, 1780.						♎	5 33	6 31	2 54	2	5 41	6 24	2 43														
8 W		Louisiana admitted, 1812.						♏	5 32	6 32	3 30	2	5 40	6 25	3 24														
9 Th		Civil Rights Bill, 1886.						♐	5 30	6 33	4 5	2	5 39	6 25	4 2														
10 Fr		☾ Good Friday. ♂ ♀ ☾.						♑	5 28	6 35	4 41	2	5 37	6 26	4 42														
11 Sa		☾ 11th. Civ. war beg., '61						♒	5 27	6 36	rises.	1	5 36	6 27	rises.														
15. Easter Sunday. John 20. 13h. 12m. Day's Length, 12h. 52m.																													
12 Su		♂ ☽ ☉ Sup. ☾ gr. lib. W.						♓	5 25	6 37	7 32	1	5 35	6 27	7 22														
13 M		Justice Field died, 1894.						♈	5 24	6 38	8 35	1	5 34	6 28	8 20														
14 Tu		Embargo law repeal'd, '14						♉	5 22	6 39	9 35	0	5 32	6 29	9 18														
15 W		Patent law passed, 1790.						♊	5 21	6 40	10 30	0	5 31	6 29	10 11														
16 Th		♂ ☽ ☾.						♋	5 19	6 41	11 21	ft	5 30	6 30	11 1														
17 Fr		♂ in ♄.						♌	5 18	6 42	morn	0	5 29	6 31	11 47														
18 Sa		☾ in apogee.						♍	5 16	6 43	0 6	0	5 28	6 32	morn														
16. Low Sunday. John 20. 13h. 29m. Day's Length, 13h. 6m.																													
19 Su		☾ 19th. Troops ord. to						♎	5 15	6 44	0 47	1	5 26	6 32	0 29														
20 M		♂ ♀ ☾. [Manilla, '99.						♏	5 13	6 45	1 24	1	5 25	6 33	1 9														
21 Tu		♂ in perihelion.						♐	5 12	6 46	1 57	1	5 24	6 34	1 46														
22 W		Oklahoma opened, 1889.						♑	5 10	6 47	2 29	1	5 23	6 35	2 20														
23 Th		♂ ♀ ☾.						♒	5 9	6 48	2 58	2	5 22	6 35	2 54														
24 Fr		New Orleans taken, 1872.						♓	5 8	6 49	3 28	2	5 21	6 36	3 27														
25 Sa		☾ gr. libration E.						♈	5 6	6 50	4 41	2	5 20	6 36	4 6														
17. 2d Sunday after Easter. John 10. 13h. 46m. Day's Length, 13h. 18m.																													
26 Su		Wilkes Booth shot, 1865.						♉	5 5	6 51	4 37	2	5 19	6 37	4 43														
27 M		☾ 27th. Gen. Grant b., '22						♊	5 3	6 52	sets	2	5 18	6 38	sets														
28 Tu		☾ ♀ ☾.						♋	5 2	6 53	8 19	2	5 17	6 39	8 3														
29 W		♂ ♀ ☾.						♌	5 1	6 54	9 24	3	5 16	6 40	9 6														
30 Th		♀ in perihelion.						♍	4 59	6 55	10 27	3	5 15	6 41	10 7														

For September

1st to 3rd—MILD PERIOD. Weather generally

pleasant and genial at all points east of the Mississippi River. Threatening conditions in Texas and along Gulf coast.

4th to 7th—TORNADO PERIOD. Rain storms in Texas, Oklahoma and Kansas. Tornado storms in Mississippi, Alabama and Tennessee. Dangerous gales over Appalachian region and Atlantic coast.

8th to 12th—WARM WAVE. High temperatures for September in Western and Central States and along Atlantic slope. Temperature 95° at Wichita, 93° at Kansas City, 92° at St. Louis, 98° at Raleigh, 96° at Lynchburg, 94° at Baltimore and 90° at Albany.

13th to 17th—STORM WAVE. Thunder storms general in Texas, Oklahoma, Kansas, Nebraska, Missouri and Iowa. Unusually high winds over Rocky Mountains.

18th to 22nd—COOL PERIOD. Sharp frosts in Central and Western States and over Appalachian mountain region. Temperature 32° at Sioux City, 33° at Columbia, 39° at Springfield, Ill., 37° at Nashville, 39° at Lynchburg and 42° at Harrisburg.

23rd to 26th—CLOUDY PERIOD. Rain with thunder and lightning at various points South and Southwest. Heavy fogs over Lake region and South Atlantic coast.

27th to 30th—GREAT STORM WAVE. West Indian Hurricane raging on Gulf coast and along Atlantic seaboard. Destructive gales over Lower Lake region.

The temperature will be about normal at all points except in the Northwest where it will be decidedly below normal. The rainfall will be generally above the average except in the Gulf and South Atlantic States where there will be marked deficiencies.

For October.

1st to 3rd—COOL WAVE. Fine fall weather, with clear

frosty nights at all points north of the parallel of 40. Damp, cloudy and foggy conditions prevailing in Texas and Gulf coast.

4th to 8th—MILD PERIOD. Fine, genial Autumn days with brilliantly star-lit skies at night in all sections except along extreme Southern portions where unsettled weather continues.

9th to 13th—RAIN PERIOD. Cloudy weather prevailing from the Gulf Coast to the Great Lakes. Thunder storms in Texas, Oklahoma, Kansas and Missouri.

14th to 18th—MILD PERIOD. Fair to variable weather over Mississippi and Ohio River Valleys. Cloudy, foggy conditions prevailing over Lake region and New England States.

19th to 23rd—COLD PERIOD. Low temperatures for October over Northwest and Central West. Temperature 24° at Helena, 26° at Omaha, 31° at Kansas City, 32° degrees at Hannibal and 29° at Chicago.

24th to 27th—MILD PERIOD. Cool nights and pleasant sunshiny days with auroral displays common in northern portions of the country.

28th to 31st—STORM WAVE. Heavy gales and damaging storms general with great loss to life and shipping on Gulf and Atlantic coasts.

The month as a rule will be warm and sunshiny with no excesses of temperature. The rainfall will generally be below normal except in Gulf States, where it will be heavy.

For November.

1st to 4th—DAMP, WET PERIOD. Generally damp,

cloudy and threatening weather prevailing from Gulf States to Great Lakes. General rains over Missouri, Kansas and Oklahoma.

5th to 9th—RAIN PERIOD. Local rains at all points west of Mississippi River. High winds and snow squalls over Rocky Mountain region. Dangerous gales from the Great Lakes to New England.

10th to 14th—WARM WAVE. Warm, sunshiny days at all points in Southern, Central and Middle Atlantic States. Temperature 86° at Vicksburg, 80° at Little Rock, 75° at Louisville, 77° at Atlanta and 77° at Knoxville.

15th to 19th—STORM WAVE. Heavy rain, sleet and snow in Washington, Idaho and Oregon. High winds and rain storms general throughout Mississippi and Ohio River Valleys and over Lake region.

20th to 24th—MILD PERIOD. Clear, fair weather at all points North and East. Drouthy conditions prevailing at all points from Kansas to Ohio. Fine Autumn weather along the Atlantic slope.

25th to 27th—STORM PERIOD. High winds and storms prevailing from Kansas to Georgia. Great loss to life and property in Mississippi, Alabama, Tennessee and Kentucky.

28th to 30th—COLD WAVE. Unusually cold weather for November. Temperature 20° below at Helena, 10° below at St. Paul, 5° below at Davenport, 6° above at Hannibal, 10° above at Cincinnati and 15° above at Nashville.

The temperature will be below the average in Western half, but above normal in Eastern half of the country. The precipitation will be about the average.

For December.

1st to 3rd—COLD PERIOD. Cold raw winds from

the Northwest at many points west and north. Temperature 21° below zero at Duluth, 9° below at LaCrosse, 2° above at Detroit, 8° above at Buffalo, 5° at New York and 4° above at Boston.

4th to 8th—MILD PERIOD. Generally clear to fair weather at all points East and West. Damp, foggy conditions along Gulf and South Atlantic Coast.

9th to 13th—WARM PERIOD. Pleasant, sunshiny weather for December. Temperature 75° at Little Rock, 72° at Kansas City, 66° at Cincinnati, 64° at Parkersburg, 66° at Baltimore, and 60° at Philadelphia.

14th to 17th—STORM WAVE. Great storm of high wind, rain and snow along entire Atlantic coast. Railroad and steamship traffic suspended. Great downpour along North Pacific coast.

18th to 21st—MILD PERIOD. Fine Winter weather over Western, Central and Southern States. Foggy conditions along Gulf and Atlantic coast.

22nd to 26th—DROUTH PERIOD. Want of rain felt at all points north of parallel 35. Cold nights and pleasant sunshiny days from the Rocky Mountains to the Alleghanies.

27th to 31st—UNSETTLED PERIOD. Cloudy, threatening weather over South and Southwest portions. Foggy conditions over Lake region, the Middle Atlantic and New England States.

The temperature will be generally above the average. The precipitation will be deficient at all points except along North Pacific Coast region where it will be excessive.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F.Q.	4 2 26 M.	4 2 26 M.	4 1 26 M.
F.M.	11 8 18 M.	11 8 18 M.	11 7 18 M.
F.Q.	19 10 18 M.	19 10 18 M.	19 9 18 M.
N.M.	26 5 50 A.	26 5 50 A.	26 4 50 A.

MOON'S SIGNS.

LATITUDE

Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

LATITUDE

Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

D.	D.	HISTORICAL EVENTS.	Sun rises.	Sun sets.	Moon sets.	SUN EAST.	Sun rises.	Sun sets.	Moon sets.
M.	W.		H. M.	H. M.	H. M.	M.	H. M.	H. M.	H. M.
1	Fr	♂ ♀ ☾. ☾ in perigee.	□	4 58	6 56 11 22	3	5 14	6 41 11 4	
2	Sa	♂ gr. hel. lat. N.	□	4 56	6 57 morn	3	5 13	6 42 11 56	
18. 3d Sunday after Easter. John 16. 14h. 3m. Day's Length. 13h. 33m.									
3	Su	Farragut at N. Orleans '62	☾	4 55	6 58 0 12	3	5 12	6 42 morn	
4	M	♂ 4th. Chicago riots, '86	☾	4 54	6 59 0 56	3	5 11	6 43 0 42	
5	Tu	♂ Bread riots Spain '98	☾	4 53	7 0 1 34	3	5 10	6 44 1 25	
6	W	Humboldt died, 1859.	☾	4 52	7 2 2 8	3	5 9	6 45 2 4	
7	Th	♂ ♂ ☾.	☾	4 51	7 3 2 41	4	5 8	6 45 2 40	
8	Fr	Dante born, 1265.	☾	4 50	7 4 3 16	4	5 7	6 46 3 19	
9	Sa	☾ gr. libration W.	☾	4 49	7 5 3 48	4	5 6	6 47 3 56	
19. 4th Sunday after Easter. John 16. 14h. 19m. Day's Length. 13h. 42m.									
10	Su	♂ stationary. [1864.	☾	4 47	7 6 4 22	4	5 5	6 47 4 33	
11	M	♂ 11th. J.E.B. Stuart d.,	☾	4 46	7 7 rises.	4	5 4	6 48 rises.	
12	Tu	♂ Bat. Spotsyl. C.H., '64	☾	4 45	7 8 8 20	4	5 4	6 49 8 2	
13	W	Flying Squadron sl., 1898.	☾	4 44	7 8 9 13	4	5 3	6 50 8 54	
14	Th	♂ ♂ ☾.	☾	4 43	7 9 10 1	4	5 2	6 50 9 42	
15	Fr	♂ ♀ ☾.	☾	4 42	7 10 10 44	4	5 1	6 51 10 26	
16	Sa	☾ in apogee.	☾	4 41	7 11 11 22	4	5 1	6 52 11 7	
20. Rogation Sunday. John 16. 14h. 31m. Day's Length. 13h. 53m.									
17	Su	Gen. Grant sl. to Europe,	☾	4 41	7 12 11 59	4	5 0	6 53 11 45	
18	M	♂ ♀ ☾. [1877.	☾	4 40	7 13 morn	4	4 59	6 53 morn	
19	Tu	♂ 19th. Sp. fl. at Santia-	☾	4 39	7 14 0 29	4	4 59	6 54 0 20	
20	W	♂ stationary. [go, '98	☾	4 38	7 15 0 59	4	4 58	6 55 0 52	
21	Th	Ascension Day. ♂ ♀ ☾.	☾	4 37	7 15 1 28	4	4 58	6 55 1 25	
22	Fr	♀ gr. hel. lat. N.	☾	4 37	7 16 2 0	4	4 57	6 56 2 1	
23	Sa	Dewey at Hong Kong, '90	☾	4 36	7 17 2 33	4	4 56	6 57 2 38	
21. Sunday after Ascension. John 15-16. 14h. 43m. Day's Length. 14h. 1m.									
24	Su	Copernicus died, 1543.	☾	4 35	7 18 3 7	3	4 56	6 57 3 15	
25	M	♂ in ☾.	☾	4 35	7 19 3 45	3	4 55	6 58 3 58	
26	Tu	♂ 26th. Pres. Johnson	☾	4 34	7 20 4 29	3	4 55	6 59 4 46	
27	W	♂ ♂ ☾. [acq., 1868.	☾	4 34	7 21 sets.	3	4 55	6 59 sets.	
28	Th	♂ ♀ ☾. ☾ in perigee.	☾	4 33	7 21 9 13	3	4 54	7 0 8 53	
29	Fr	♂ ♀ ☾.	☾	4 33	7 22 10 7	3	4 54	7 1 9 50	
30	Sa	Decoration Day.	☾	4 32	7 23 10 55	3	4 54	7 1 10 40	
22. Whit Sunday. John 14. 14h. 52m. Day's Length. 14h. 9m.									
31	Su	Fenian raid, 1866.	☾	4 32	7 24 11 36	3	4 53	7 2 11 25	

Kitchen and Boudoir

Language of Precious Stones.

The ancients attributed marvelous properties to the precious stones, and particular gems have been marked by their own distinguishing fables. The same notions have more or less continued down to times not long passed. We give below the different months, and the stones sacred to them, and their respective legendary meaning. It has been customary, among lovers and friends, to notice the significance attached to the various stones in making birthday, engagement and wedding presents.

January.—Garnet.—Constancy and fidelity in every engagement.

February.—Amethyst.—Preventative against violent passions.

March.—Bloodstone.—Courage, wisdom and firmness in affection.

April.—Sapphire.—Free from enchantment; denotes repentance.

May.—Emerald.—Discovers false friends, and insures true love.

June.—Agate.—Insures long life, health and prosperity.

July.—Ruby.—Discovers poison; corrects evils resulting from mistaken friendship.

August.—Sardonyx.—Insures conjugal felicity.

September.—Chrysolite.—Free from evil passions and sadness of the mind.

October.—Opal.—Denotes hope, and sharpens the sight and faith of the possessor.

November.—Topaz.—Fidelity and friendship; prevents bad dreams.

December.—Turquoise.—Prosperity in love.

The Work Room.

TO MAKE RUGS.—Some very nice rugs can be made from old rags. Take a new gunny sack, put in frames same as you would a quilt. Have your rags torn nice and fine; mark out any pattern you wish, and draw the rags through one-half inch. Be sure and have the loops all even, and the work will look better. A very pretty rug is made with two

American flags in the center, filled around with black, and then a pretty border. You can put stripes, squares, hearts, or any shape, in the border. Another pretty pattern is that of roses in the centre, filled all around with black and then a border of rosebuds and green leaves.

TO COLOR COTTON RAGS.—For yellow.—To 6 pounds of rags, use 4 ounces bichromate potash, 3 ounces sugar of lead; dissolve separate in water to cover goods; have both hot; dip first in one and then in the other until the desired shade is obtained.

For blue.—For 2 pounds goods. 1 ounce Prussian blue, $\frac{1}{2}$ ounce oxalic acid; pulverize together, dissolve in hot water to cover good, dip until desired shade; rinse in alum water.

For green.—Dip yellow rags in blue dye.

For scarlet.—For 1 pound goods: cream of tartar, $\frac{1}{2}$ ounce, cochineal, $\frac{1}{2}$ ounce, muriate of tin, $2\frac{1}{2}$ ounces; boil dye; put in goods with water to cover; stir 15 minutes, then let boil $1\frac{1}{2}$ hours; wash in clear water.

Wedding Anniversaries.

First anniversary—Cotton Wedding.

Second anniversary—Paper Wedding.

Third anniversary—Leather Wedding.

Fifth anniversary—Wooden Wedding.

Seventh anniversary—Woolen Wedding.

Tenth anniversary—Tin Wedding.

Twelfth anniversary—Silk and Fine Linen Wedding.

Fifteenth anniversary—Crystal Wedding.

Twentieth anniversary—China Wedding.

Twenty-fifth anniversary—Silver Wedding.

Thirtieth anniversary—Pearl Wedding.

Fortieth anniversary—Ruby Wedding.

Fiftieth anniversary—Golden Wedding.

Seventy-fifth anniversary—Diamond Wedding.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F.Q.	2 8 21 M.	2 8 21 M.	2 7 21 M.
F.M.	9 10 8 A.	9 10 8 A.	9 9 8 A.
L.Q.	18 1 44 M.	18 1 44 M.	18 0 44 M.
N.M.	25 1 11 M.	25 1 11 M.	25 0 11 M.

MOON'S SIGNS.

LATITUDE

Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

SUN SLOW.

LATITUDE

Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

D. M.	D. W.	HISTORICAL EVENTS.	Sun rises.	Sun sets.	Moon sets.	Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	M	Surrender Cap. Jack, 1873	4 31	7 25	morn	4 53	7 2	morn
2	Tu	2d. Cleveland mar. '86	4 31	7 25	0 12	4 53	7 3	0 5
3	W	♂ ♂ ♄. Ember Day.	4 30	7 26	0 45	4 52	7 3	0 43
4	Th	♂ in aphelion. ♄ gr. li-	4 30	7 27	1 20	4 52	7 4	1 22
5	Fr	Ember Day. [bration W.	4 29	7 27	1 51	4 52	7 4	1 58
6	Sa	Ember Day.	4 29	7 28	2 24	4 52	7 5	2 33

23. Trinity Sunday. John 3. 14h. 59m. Day's Length, 14h. 13m.

7	Su	Edwin Booth died, 1893.	4 29	7 28	2 56	2	4 52	7 5	3 10
8	M	Thos. Payne died, 1809.	4 28	7 29	3 35	1	4 51	7 6	3 51
9	Tu	9th. Ford's Theatre	4 28	7 29	rises.	1	4 51	7 6	rises.
10	W	♂ ♂ ♄. [col'd, 1893	4 28	7 30	7 57	1	4 51	7 7	7 38
11	Th	Corpus Christi.	4 28	7 30	8 41	1	4 51	7 7	8 22
12	Fr	Bryant died, 1878.	4 28	7 31	9 22	1	4 51	7 8	9 5
13	Sa	♄ ♄ ♄. ♄ in apogee.	4 28	7 31	9 59	0	4 51	7 8	9 44

24. 1st Sunday after Trinity. Luke 16. 15h. 4m. Day's Length, 14h. 17m.

14	Su	♂ ♄ ♄.	4 28	7 32	10 31	0	4 51	7 8	10 20
15	M	♂ stationary.	4 28	7 32	11 2	sl	4 51	7 9	10 53
16	Tu	Baron Ketteler killed by	4 28	7 32	11 30	0	4 51	7 9	11 25
17	W	♂ ♄ ♄. [Boxers, 1900.	4 28	7 33	11 58	0	4 51	7 10	11 58
18	Th	18th. Bat. Waterloo '15	4 28	7 33	morn	1	4 51	7 10	morn
19	Fr	♄ gr. libration E.	4 28	7 33	0 33	1	4 51	7 10	0 35
20	Sa	Santa Anna died, 1876.	4 28	7 34	1 3	1	4 52	7 11	1 10

25. 2d Sunday after Trinity. Luke 14. 15h. 5m. Day's Length, 14h. 19m.

21	Su	Ladron Is. capt'd, 1898.	4 29	7 34	1 15	1	4 52	7 11	1 50
22	M	♄ ent. ♄. Summer beg.	4 29	7 34	2 18	2	4 52	7 11	2 33
23	Tu	♄ ♄ ♄.	4 29	7 35	3 6	2	4 52	7 11	3 23
24	W	♄ in ♄. St. John Bapt.	4 29	7 35	4 10	2	4 53	7 11	4 19
25	Th	25th. ♄ gr. hel. lat. S.	4 30	7 35	sets	2	4 53	7 11	sets
26	Fr	♄ ♄ ♄.	4 30	7 35	8 46	2	4 53	7 11	8 30
27	Sa	♄ gr. elong. W. 22° 05'.	4 30	7 35	9 32	3	4 53	7 12	9 19

26. 3d Sunday after Trinity. Luke 15. 15h. 4m. Day's Length, 14h. 18m.

28	Su	♄ ♄ ♄.	4 31	7 35	10 11	3	4 54	7 12	10 3
29	M	Henry Clay died, 1852.	4 31	7 35	10 46	3	4 54	7 12	10 43
30	Tu	Prohib'n in Atlanta, 1886	4 32	7 35	11 21	3	4 54	7 12	11 24

Paste Recipe.

The following paste, it is said, will adhere to any substance to which it is applied: Sugar of lead, 1½ ounces; alum, 1½ ounces; gum arabic, 2½ ounces; wheat flour, 1 pound; water, sufficient.

Dissolve the gum arabic in two quarts of warm water; when cold, mix in the wheat flour, and add the sugar of lead and alum, dissolved in water. Place the whole on a fire, stirring constantly, and take it off when it shows signs of ebullition. Let it cool, and the paste is made. If the paste is too thick, add to it some gum water to bring it to the proper consistency.

Ten Health Rules.

1. Be temperate in labor, calm in thought and in spirit. Go to extremes in nothing, but hold to moderation in all things.

2. Live as much as possible in the air and sunshine, and avoid unwholesome houses and regions.

3. Eat moderately of simple food, suited to the needs of the body, whether given to sedentary or physical labor, and to the season and climate. Eat slowly and be agreeable at the table. Let daily meeting with friends and family be a joyous one.

4. Take sufficient exercise of body and mind for all needs, but avoid excess and physical strain, draughts, etc.

5. Keep the body clean by baths, and the skin well exercised and tough by friction, with now and then a sun bath.

6. Dress so that the body will be well protected, but also that there will be perfect freedom of motion.

7. Sleep in a well ventilated room, and sleep long enough to allow the bodily waste of yesterday to be repaired. Do not, however, spend more time in bed than is required for this purpose.

8. Drink pure water—that which is free from the germs of disease, or some equally wholesome drink.

9. Attend to all the functions of nature, so that the waste and poisonous matter will not accumulate in the system. Here is a source of untold harm. Take the distractions of life philosophically, and do not be elated over its successes, or depressed over its failures. Do your best and rest satisfied.

10. Avoid all pursuits which enslave the mind or keep it in a fever of un-

wholesome excitement, or discouragement and depression. Do not live alone, nor become pessimistic, nor sombre, but cultivate joyousness, and seek that perfection of nature which is within your reach.

Colors that Harmonize When Worn.

Black and white.
Black and lilac.
Black and orange.
Black and pink.
Black and scarlet.
Black and brown.

Black and drab, or buff.
Black, white and yellow, or crimson.
Black, orange, blue and scarlet.

Blue and drab.
Blue and stone color.

Blue and gray.
Blue and white.
Blue and straw color.

Blue and maize.
Blue and chestnut.
Blue and chocolate.

Blue and brown.
Blue and black.

Blue and gold.
Blue and orange.
Blue and salmon color.

Blue and scarlet.
Blue and purple.
Blue and lilac.

Blue, scarlet and purple, or lilac.
Blue, orange and black.
Blue, orange and green.

Blue, brown, crimson and gold, or yellow.

Blue, orange, black and white.

Crimson and black. A poor harmony.

Crimson and drab.

Crimson and brown. Very poorly.
Crimson and orange.

Crimson and maize.
Crimson and purple.

Green and scarlet.
Green, scarlet and blue.

Green, crimson, blue and gold, or yellow.

Green and gold.
Green and orange.

Green and yellow.
Lilac and crimson.

Lilac, scarlet and white, or black.
Lilac, gold color, and crimson.

Lilac, yellow, or gold, scarlet and white.

Lilac and gold, or gold color.
Lilac and maize.

Lilac and cherry.
Lilac and scarlet.

Orange, blue and crimson.
Orange, purple and scarlet.

Orange, blue, scarlet and purple.
Orange, blue, scarlet and claret.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
D. H. M.	D. H. M.	D. H. M.	D. H. M.
F.Q.	1 4 2 A.	1 4 2 A.	1 3 2 A.
F.M.	9 0 43 A.	9 0 43 A.	9 11 43 M.
L.Q.	17 2 24 A.	17 2 24 A.	17 1 24 A.
N.M.	24 7 46 M.	24 7 46 M.	24 6 46 M.
F.Q.	31 2 15 M.	31 2 15 M.	31 1 15 M.


MOON'S SIGNS.

LATITUDE

Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

LATITUDE

Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

P. Q. Jan 2 15 M. Jan 2 15 M. Jan 1 15 M.			MO	Sun		Sun		Moon		M.	Sun		Sun		Moon	
D.	D.	HISTORICAL EVENTS.		rises.	sets.	sets.	sets.	sets.	rises.		sets.	sets.	rises.	sets.	sets.	
M.	W.			H.	M.	H.	M.	H.	M.		H.	M.	H.	M.	H.	M.
1	W	 1st. $\delta \delta \odot$.	\cap	4 32	7 35	11 56	3	4 55	7 12	11 59						
2	Th	\oplus in aphelion.	\cap	4 33	7 34	morn	4	4 55	7 12	morn						
3	Fr	Cervera's fleet des., 1898.	\cap	4 33	7 34	0 27	4	4 56	7 12	0 36						
4	Sa	Jefferson & Adams d. 1826	\cap	4 34	7 34	1 1	4	4 56	7 12	1 13						

27. 4th Sunday after Trinity. Luke 6. 15h. om. Day's Length, 14h. 14m.

5	Su	Battle of Carthage, 1864.	\cap	4 34	7 34	1 37	4	4 57	7 11	1 52	
6	M	$\Pi \delta \odot$.	\cap	4 35	7 33	2 16	4	4 57	7 11	2 34	
7	Tu	$\delta \odot$.	\cap	4 36	7 33	2 59	5	4 58	7 11	3 18	
8	W	Port Hudson sur., 1863.	\cap	4 36	7 33	3 45	5	4 58	7 11	4 4	
9	Th	9th. δ gr. elong. E. 45°	\cap	4 37	7 32	rises.	5	4 59	7 11	rises.	
10	Fr	\odot in apogee. [30°]	\cap	4 38	7 32	8 0	5	4 59	7 10	7 44	
11	Sa	$\delta \delta \odot$.	\cap	4 38	7 32	8 34	5	4 59	7 10	8 21	

28. 5th Sunday after Trinity. Luke 5. 14h. 52m. Day's Length, 14h. 10m.

12	Su	$\delta \delta \Psi$.	\cap	4 39	7 31	9 5	5	5 0	7 10	8 56	
13	M	Battle Murfreesboro, 1862	\cap	4 39	7 31	9 33	5	5 1	7 9	9 27	
14	Tu	Ψ stationary.	\cap	4 40	7 30	10 1	6	5 1	7 9	9 59	
15	W	$\delta \Psi \odot$.	\cap	4 40	7 30	10 32	6	5 2	7 9	10 34	
16	Th	Santiago surren'd. 1898.	\cap	4 41	7 29	11 3	6	5 2	7 8	11 9	
17	Fr	17th. δ in Ψ .	\cap	4 42	7 29	11 36	6	5 3	7 8	11 45	
18	Sa	δ in perihelion.	\cap	4 42	7 28	morn	6	5 4	7 8	morn	

29. 6th Sunday after Trinity. Matt. 5. 14h. 44m. Day's Length, 14h. 5m.

19	Su	Battle Winchester, 1864.	\cap	4 43	7 27	0 12	6	5 4	7 7	0 25	
20	M	Bat. Peachtree Ck., 1864.	\cap	4 44	7 27	0 55	6	5 5	7 7	1 11	
21	Tu	Last nav. bat. in W. I. at	\cap	4 45	7 26	1 44	6	5 6	7 6	2 3	
22	W	$\delta \Psi \odot$. [Nife, Cnba, 1898.	\cap	4 45	7 25	2 41	6	5 6	7 6	3 1	
23	Th	Gen. Grant died, 1885.	\cap	4 46	7 24	3 47	6	5 7	7 5	4 5	
24	Fr	24th. $\delta \delta \odot$. \odot in per-	\cap	4 47	7 23	sets.	6	5 8	7 4	sets.	
25	Sa	St. James. [1900.]	\cap	4 48	7 22	8 5	6	5 8	7 4	7 55	

30. 7th Sunday after Trinity. Mark 8. 14h. 32m. Day's Length, 14h. 5pm

26	Su	$\delta \delta \odot$. Superior.	\cap	4 49	7 21	8 44	6	5 9	7 3	8 38	
27	M	$\delta \odot$.	\cap	4 50	7 19	9 18	6	5 10	7 2	9 17	
28	Tu	Battle of Atlanta, 1864.	\cap	4 51	7 18	9 56	6	5 10	7 2	9 59	
29	W	δ gr. hel. lat. N.	\cap	4 52	7 18	10 29	6	5 11	7 1	10 36	
30	Th	$\delta \delta \odot$. $\delta \delta \odot$.	\cap	4 54	7 17	11 2	6	5 11	7 0	11 13	
31	Fr	31st. Bat. nr. Man., '98	\cap	4 55	7 16	11 38	6	5 12	7 0	11 52	

Orange, blue, scarlet, white and green.

Orange and chestnut.

Orange and brown.

Orange, lilac and crimson.

Orange, red and green.

Purple, scarlet and gold color.

Purple, scarlet and white.

Purple, scarlet, blue and orange.

Purple, scarlet, blue, yellow and black.

Purple and gold, or gold color.

Purple and orange.

Purple and maize.

Purple and blue.

Red and gold, or gold color.

Red and white, or gray.

Red, orange and green.

Red, yellow, or gold color, and black

Red, gold color, black and white.

Scarlet and slate color.

Scarlet, black and white

Scarlet, blue and yellow.

Scarlet, blue, black and yellow.

Scarlet and blue.

Scarlet and orange.

White and gold.

White and scarlet.

White and crimson.

White and cherry.

White and pink.

White and brown.

Yellow and chestnut, or chocolate.

Yellow and brown.

Yellow and red.

Yellow and crimson.

Yellow and black

Yellow, purple and crimson.

Yellow, purple, scarlet and blue.

Yellow and purple.

Yellow and violet.

The various modifications of these shades must be provided for by the taste and good judgment of the person using them.

The Language of Flowers.

A cluster of flowers can be made to express any sentiment, if care is taken in the selection.

If a flower is offered reversed, its original significance is contradicted, and the opposite implied

A rosebud divested of its thorns, but retaining its leaves, conveys the sentiment, "I fear no longer; I hope." Stripped of leaves and thorns, it signifies, "There is nothing to hope or fear."

A full blown rose placed over two buds, signifies, "Secrecy."

"Yes" is implied by touching the flower given to the lips: "No," by

pinching off a petal and casting it away.

"I am," is expressed by a laurel leaf twined around the bouquet; "I have," by an ivy leaf folded together; "I offer you," by a leaf of Virginia creeper.

COMBINATIONS.

Moss Rosebud } A confession of love.

Myrtle

Mignonette } Your qualities surpass

Colored Daisy } your charms of beauty.

Lily of the } Your unconscious sweet-

Valley } ness has fascinated

Ferns } me.

Yellow Rose } Your jealousy has

Broken Straw } broken our friendship

Ivy } I trust that you will

Scarlet Geranium } find consolation,

Passion Flower } through faith, in

Purple Hyacinth } your sorrow; be

Arbor Vitæ } assured of my un-

} changing friend-

} ship.

Columbine } Your folly and coquet-

Day Lily } ry have broken the

Broken Straw } spell of your beauty.

Witch Hazel } Your talent and perse-

Colored Daisy } verence will win you

White Pink } glory.

Canary Grass } Your talent and perse-

Laurel } verence will win you

} glory.

Arbor Vitæ — Unchanging friend-

ship.

Camellia, white—Loveliness.

Candy-Tuft—Indifference.

Carnation, white—Disdain.

China Astor—Variety.

Clover, four-leaf—Be mine.

Clover, white—Think of me.

Clover, red—Industry.

Columbine—Folly.

Daisy—Innocence.

Daisy, colored—Beauty.

Dead Leaves—Sadness.

Deadly Nightshade—Falsehood.

Fern—Fascination.

Forget-me-not.

Fuchsia, scarlet—Taste.

Geranium, Horseshoe—Stupidity.

Geranium, scarlet—Consolation.

Geranium, rose—Preference.

Golden-Rod—Be cautious.

Heliotrope—Devotion.

Hyacinth, white—Loveliness.

Hyacinth, purple—Sorrow.

Ivy—Friendship.

Lily, day—Coquetry.

Lily, white—Sweetness.

Lily, yellow—Gayety.

Lily, water—Purity of heart, ele-

gance.

Lily-of-the-Valley—Unconscious

sweetness.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F.M.	8 3 54 M.	8 3 54 M.	8 2 54 M.
L.Q.	16 0 22 M.	16 0 22 M.	15 11 22 A.
N.M.	22 2 51 A.	22 2 51 A.	22 1 51 A.
F.Q.	29 3 31 A.	29 3 31 A.	29 2 31 A.

MOON'S SIGNS.

LATITUDE

Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

LATITUDE

Of Charleston, S.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

D. M.	D. W.	HISTORICAL EVENTS.	MOON'S SIGNS.	Sun rises.	Sun sets.	Moon sets.	SUN SLOW.	Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.			H. M.	H. M.	H. M.	M.	H. M.	H. M.	H. M.

1 Sa Battle of the Nile, 1798. ♈ 4 56 7 15 morn 6 5 13 6 59 morn

31. 8th Sunday after Trinity. Matt. 7. 14h. 17m. Day's Length, 13h. 4pm.

2 Su	Earthq. in Illinois, 1887.	♌	4 57	7 14	0 16	6	5 14	6 58	0 33
3 M	♊ ♋ ♌.	♌	4 58	7 13	0 58	6	5 14	6 57	1 16
4 Tu	Iowa admitted, 1846.	♌	4 59	7 12	1 43	6	5 15	6 56	2 3
5 W	Gen. Sheridan died, 1888.	♌	5 0	7 11	2 32	6	5 16	6 55	2 51
6 Th	♌ in apogee.	♌	5 1	7 9	3 25	6	5 16	6 55	3 43
7 Fr	♌ ♌ ♌. [1862.	♌	5 2	7 8	4 19	6	5 17	6 54	4 35
8 Sa	♌ 8th. Bat. Cedar Mt.	♌	5 3	7 7	rises.	6	5 18	6 53	rises.

32. 9th Sunday after Trinity. Luke 16. 14h. 1m. Day's Length, 13h. 3pm.

9 Su	Gen. Lyon killed, 1861.	♌	5 4	7 5	7 38	5	5 18	6 52	7 30
10 M	Greenwich Ob. fd., 1675.	♌	5 5	7 4	8 6	5	5 19	6 51	8 3
11 Tu	♌ ♌ ♌.	♌	5 6	7 3	8 37	5	5 20	6 50	8 37
12 W	♀ greatest brilliancy.	♌	5 7	7 1	9 8	5	5 21	6 49	9 12
13 Th	Manilla surrend'd. 1898.	♌	5 8	7 0	9 38	5	5 21	6 48	9 45
14 Fr	C.P. Huntington d., 1900.	♌	5 9	6 59	10 12	5	5 22	6 47	10 23
15 Sa	♌ gr. libration E.	♌	5 10	6 58	10 51	4	5 23	6 46	11 6

33. 10th Sunday after Trinity. Luke 19. 13h. 45m. Day's Length, 13h. 2m.

16 Su	♌ 16th. Bat. Ben'n, 1777	♌	5 11	6 56	11 36	4	5 23	6 45	11 54
17 M	♌ Ole Bull died, 1880.	♌	5 12	6 54	morn	4	5 24	6 43	morn
18 Tu	First steamboat, 1807.	♌	5 13	6 53	0 27	4	5 25	6 42	0 46
19 W	♌ ♌ ♌.	♌	5 14	6 52	1 26	4	5 25	6 41	1 46
20 Th	Gr. nav. par. N.Y. har. 1898	♌	5 15	6 51	2 32	3	5 26	6 40	2 50
21 Fr	♀ in aph'n. ♌ in per.	♌	5 16	6 49	3 43	3	5 26	6 39	3 58
22 Sa	♌ 22d. Mob b. Akron, '00	♌	5 17	6 47	4 57	3	5 27	6 38	5 7

34. 11th Sunday after Trinity. Luke 18. 13h. 28m. Day's Length, 13h. 0m.

23 Su	Com. Perry died, 1820.	♌	5 18	6 46	sets	3	5 28	6 37	sets
24 M	♌ ♌ ♌. ♌ ♌ ♌. St. Barth.	♌	5 19	6 44	7 53	2	5 29	6 35	7 53
25 Tu	♀ stationary.	♌	5 20	6 43	8 28	2	5 29	6 34	8 32
26 W	Capt. Ft. Hatteras, 1861.	♌	5 21	6 41	9 1	2	5 30	6 33	9 10
27 Th	♌ ♌ ♌. ♌ gr. libration W.	♌	5 22	6 40	9 37	2	5 31	6 32	9 49
28 Fr	♌ ♌ ♌. [1809.	♌	5 23	6 39	10 15	1	5 31	6 31	10 31
29 Sa	♌ 29th. O.W. Holmes b.,	♌	5 24	6 37	10 57	1	5 32	6 29	11 14

35. 12th Sunday after Trinity. Mark 7. 13h. 20m. Day's Length, 12h. 55m.

30 Su	♌ ♌ ♌.	♌	5 25	6 35	11 40	1	5 33	6 28	11 59
31 M	♌ in aphelion.	♌	5 26	6 33	morn	0	5 33	6 27	morn

Mignonette—Your qualities surpass your charms.

Monkhead—Danger is near.

Myrtle—Love,

Oak—Hospitality.

Orange Blossoms—Chastity.

Pansy—Thoughts.

Passion Flower—Faith.

Primrose—Inconstancy.

Rose—Love.

Rose, damask—Beauty ever new.

Rose, yellow—Jealousy.

Rose, white—I am worthy of you.

Rosebud, moss—Confession of love.

Smilax—Constancy.

Straw—Agreement.

Straw, broken—Broken agreement.

Sweet Pea—Depart.

Tuberose—Dangerous pleasures.

Thistle—Sternness.

Verbena—Pray for me.

White Jasmine—Amiability.

Witch Hazel—A spell.

Handy Recipes.

POTATO PIE.

Boil potatoes until soft; mash through sieve; to one pint pulp add three pints sweet milk, one cup sugar, one tablespoon melted butter, three eggs, a pinch of salt, nutmeg or lemon to flavor; bake with one crust.

MOCK MINCE PIE.

One and one-half pints cold water, add five soda crackers, rolled fine, one-half cup sugar, one cup of raisins, stoned and chopped; one teaspoon each of cloves, cinnamon and nutmeg, one tablespoon butter and one beaten egg. Boil all together for fifteen minutes except the crackers, and then add the crackers. Bake with two crusts.

COCOANUT COOKIES.

Two cups sugar, one cup butter, two eggs, one teaspoon of soda dissolved in a little milk and the meat of one good-sized cocoanut grated fine; add enough flour to roll. Bake in a quick oven.

FRUIT CAKE WITH FIGS.

Following is an excellent recipe for fruit cake: half pound of butter, two cups of sugar; stir well together; then add ten eggs, two at a time, and stirring ten minutes at a time until all are added; one-fourth cake sweet chocolate, one-half teaspoonful ground cloves, one-half teaspoonful of ground cinnamon, one-half teaspoonful of ground cassia buds (flowers of cinnamon), a pinch of cardemon, one-half pound of English walnuts, one-half pound dates, one half pound figs, all ground; one

cup currants, one cup seedless raisins, one-fourth pound citron, cut fine; one tablespoonful brandy, one and one-half pints cracker meal, one and one-half teaspoonsful of baking powder. Bake two hours.

Christmas Candies.

The children will want some candy for Christmas, and they should not be disappointed, since you can, at a very small expense supply the demand yourself, and know that the candies are all pure and harmless so far as the health of the little ones, and those of older growth, who will nibble a little, is concerned. Try some of the following recipes and be convinced. None are very expensive and none difficult to make.

BUTTER SCOTCH.

Butter scotch is an old-fashioned candy, but it is liked by almost every one, and better than that, it is admitted to be one of the most harmless of concoctions. Into one cupful of water put two cupfuls of sugar, one rounded tablespoonful of butter, and four tablespoonfuls of vinegar. Boil all together until it will harden in cold water. When hard and almost brittle, it is boiled enough, and may be poured into well-buttered pans. Then cut into squares and set away to cool. In this, as in all candies, use only the best of sugar, butter and other material.

NUT CANDY.

Here is a good nut candy that is as easily made as molasses candy, and it is a good one for old and young. Boil together one cupful each of molasses and sugar until the mixture is brittle when dropped into cold water, then stir in one half-pint of blanched peanuts before taking from the fire. Pour into buttered pans, and mark off into squares and strips before it cools. Blanched peanuts are those from which the fine skin which covers the nut has been removed. This skin comes off easily from peanuts when they are rubbed between the hands. Other nuts may be used in making this candy, but many of them require blanching in another way. Cover the nut meats with boiling water and let them stand until the dark skin will easily rub off, then dry between towels. If large nut meats are used it is generally best to chop them.

MORE NUT CANDY.

A walnut candy is made as follows: Place in a saucepan, one pound of



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F.M.	6 7 20 A.	6 7 20 A.	6 6 20 A.
L.Q.	14 8 14 M.	14 8 14 M.	14 7 14 M.
N.M.	20 11 31 A.	20 11 31 A.	20 10 31 A.
F.Q.	28 8 8 M.	28 8 8 M.	28 7 8 M.

LATITUDE

Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

LATITUDE

Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

MOON'S SIGNS.

Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.

SUN FAST.

Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.

HISTORICAL EVENTS.

D. M.	D. W.	HISTORICAL EVENTS.	MOON'S SIGNS.	Sun rises.	Sun sets.	Moon sets.	SUN FAST.
1	Tu	♂ stationary.	♂	5 27	6 31	0 28	0
2	W	Atlanta captured, 1864.	♂	5 28	6 30	1 19	0
3	Th	♂ ♀ ☾. ☾ in apogee.	♂	5 29	6 28	2 13	0
4	Fr	Gen. Morgan killed, 1864.	♂	5 30	6 27	3 8	1
5	Sa	A. Sewell of Maine d., 1900.	♂	5 31	6 25	4 6	1

36. 13th Sunday after Trinity. Luke 10. 12h. 52m. Day's Length, 12h. 42m.

6	Su	♂ 6th. Pres. McKinley	♂	5 32	6 24	rises.	1	5 37	6 19	rises.
7	M	♂ 24 ☾. [ass'd, 1901.	♂	5 33	6 22	6 38	2	5 38	6 18	6 38
8	Tu	Galveston des. by fld. 1900	♂	5 34	6 20	7 12	2	5 38	6 16	7 15
9	W	U.S. Peace Com. app. 1898	♂	5 35	6 18	7 42	2	5 39	6 15	7 49
10	Th	S. S. Cox died, 1889.	♂	5 36	6 17	8 15	3	5 39	6 14	8 25
11	Fr	☾ gr. libration E.	♀	5 37	6 15	8 51	3	5 40	6 12	9 5
12	Sa	♂ 24 ☾.	♀	5 38	6 14	9 34	3	5 41	6 11	9 50

37. 14th Sunday after Trinity. Luke 17. 12h. 33m. Day's Length, 12h. 28m.

13	Su	Cervera ret. to Spain, '98.	♂	5 39	6 12	10 21	4	5 42	6 10	10 39
14	M	♂ 14th. Bat. Boonesboro	♂	5 40	6 10	11 15	4	5 42	6 8	11 34
15	Tu	♂ ♀ ☾. ☾ ☾ ☾. [1862.	♂	5 41	6 9	morn	5	5 43	6 7	morn
16	W	Ember Day.	♂	5 42	6 7	0 16	5	5 44	6 6	0 35
17	Th	♂ ♀ ☾. Inferior.	♂	5 43	6 5	1 23	5	5 44	6 4	1 39
18	Fr	☾ in perigee. Ember Day.	♂	5 44	6 4	2 33	6	5 45	6 3	2 47
19	Sa	Ember Day.	♂	5 45	6 2	3 45	6	5 46	6 2	3 54

38. 15th Sunday after Trinity. Matt. 6. 12h. 14m. Day's Length, 12h. 14m.

20	Su	♂ 20th. ♀ ♀ ☾.	♂	5 46	6 0	5 0	6	5 46	6 0	5 4
21	M	♂ gr. hel. lat. S.	♂	5 47	5 59	sets.	7	5 47	5 59	sets.
22	Tu	♂ 8 ☾.	♂	5 48	5 57	6 57	7	5 48	5 58	7 4
23	W	Neptune discov'd, 1846.	♂	5 49	5 55	7 32	7	5 48	5 56	7 42
24	Th	☾ ent. ♄. Autumn beg.	♂	5 50	5 54	8 9	8	5 49	5 55	8 24
25	Fr	♂ 8 ☾.	♂	5 51	5 52	8 51	8	5 49	5 54	9 8
26	Sa	Dewey ar. at N. Y., 1899.	♂	5 52	5 50	9 35	8	5 50	5 52	9 53

39. 16th Sunday after Trinity. Luke 7. 11h. 55m. Day's Length, 12h. 0m.

27	Su	♂ 8 ☾.	♂	5 53	5 48	10 21	9	5 51	5 51	10 40
28	M	♂ 28th. Slaves fr. in Bra-	♂	5 54	5 47	11 12	9	5 51	5 50	11 30
29	Tu	Michaelmas. [zil, '72.	♂	5 55	5 45	morn	9	5 52	5 48	morn
30	W	♂ 2 ☾. ☾ in apogee.	♂	5 56	5 43	0 5	10	5 53	5 47	0 23

brown sugar with one gill of boiling water and boil hard for twenty minutes; add one-fourth pound of butter and boil five minutes longer; add one-half pint of English walnut or hickory nut kernals and stir them well in; when it boils up once more, take from the fire and stir a minute longer, and pour into buttered dishes. When this candy is cold it will be brittle, and can be broken up into irregular pieces.

STILL MORE NUT CANDY.

Another nut candy: Shell, blanch and chop one pound of English walnuts. Boil together one cupful of milk and three cupfuls of light brown sugar until it will harden when dropped into water, but will not be brittle; just before taking up add one rounded tablespoonful of butter and one teaspoonful of vanilla, and after waiting a moment to stir the ingredients together, add the chopped nuts and stir them in. Pour into buttered pans, mark into squares and set away to cool.

PEPPERMINT DROPS.

Old-fashioned peppermint drops are easily made by the rule here given: To every cupful of fine granulated sugar add one quarter cupful of hot water. Boil five minutes, flavor to taste with peppermint extract, stir until thick, then drop onto a marble slab or onto paper and set away to cool. You may make the drops large or small to suit the fancy.

EVERTON TAFFY.

Everton taffy is easily made and is very popular across the water. To make it use two large cupfuls of the best New Orleans molasses, three cupfuls of the best light brown sugar, one cupful of butter and two teaspoonfuls of vanilla. Boil until the mixture will rope in water, then pour into well-buttered pans and cut into squares.

CHOCOLATE CANDY.

One cup grated chocolate, one cup brown sugar, one cup molasses, one-half cup sweet milk. Boil until it hardens when dropped in water: then add butter the size of an egg, one cup chopped walnuts, pour it out in a buttered pan, cut in squares when cool.

CANDIED HOREHOUND.

Take some horehound and boil it till the juice is extracted, when sugar, which has been previously boiled until candied, must be added to it. Stir the

compound over the fire until it thickens. Pour it out into a paper case dusted over with fine sugar and cut it into squares or any other shape desired.

PEPPERMINT DROPS.

A brass or block-tin sauce-pan must be rubbed inside with a little butter. Put into it one-half pound of crushed lump sugar with a tablespoonful or so water. Place it over the fire and let it boil briskly for ten minutes, when a dessert spoonful of essence of peppermint is to be stirred into it. It may then be let fall in drops upon writing paper, or poured out upon plates which have been rubbed with butter.

GINGER DROPS.

Mix one ounce of prepared ginger with one pound of loaf-sugar; beat it to a paste two ounces of fresh candied orange in a mortar, with a little sugar. Put the above in a brass or block-tin saucepan with a little water. Stir them all well, and boil until they are sufficiently amalgamated, which will be when the mixture thickens like ordinary candied sugar. Pour out on writing paper in drops, or on plate, as for peppermint drops.

LEMON DROPS.

Grate three large lemons: then take a large piece of best lump sugar and reduce it to a powder. Mix the sugar and lemon on a plate with half a teaspoonful of flour, and beat the compound with the white of an egg until it forms a light paste. It must then be in drops on a clean sheet of writing paper, and placed before the fire to dry rather than to bake.

DAMSON DROPS.

Take some Damsons and bake them without breaking them. Remove the skins and stones, and reduce them to a fine pulp by pressing them through a sieve. Sift upon the pulp some crushed lump sugar, and mix it with a knife until it becomes stiff. Place it upon writing paper in the form of drops; put them in a gentle oven to dry, and when dry take them out and turn them on a seive. Then wet the paper and the drops will separate from it, after which they are to be placed in a slack oven and dried until they are hard. They are placed in layers in a box with paper between each layer, and in that way will keep well if air and damp are excluded.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
D. H. M.	D. H. M.	D. H. M.	D. H. M.
F.M.	6 10 24 M.	6 10 24 M.	6 9 24 M.
L.Q.	13 2 56 A.	13 2 56 A.	13 1 56 A.
N.M.	20 10 30 M.	20 10 30 M.	20 9 30 M.
F.Q.	28 3 32 M.	28 3 32 M.	28 2 32 M.

MOON'S SIGNS.

LATITUDE

Of New York City.
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

SUN'S EAST.

LATITUDE

Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

D. M.	D. W.	HISTORICAL EVENTS.		Sun rises.	Sun sets.	Moon sets.		Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Th	Black Hawk died, 1838.	♊	5 57	5 42	1 0	10	5 54	5 46	1 15
2	Fr	First rail'd in U.S., 1833.	♊	5 58	5 40	1 57	10	5 54	5 44	2 9
3	Sa	♄ ♀ ☉. Inferior.	♊	5 59	5 38	2 55	11	5 55	5 43	3 4

40. 17th Sunday after Trinity. Luke 14. 11h. 37m. Day's Length, 11h. 46m.

4	Su	Ex-Pres. Hayes b., 1822.	♊	6 0	5 37	3 55	11	5 56	5 42	3 59
5	M	Dalton gang des., 1892.	♋	6 1	5 35	4 55	11	5 56	5 40	4 55
6	Tu	♄ 6th. ♀ stationary.	♋	6 2	5 33	rises.	12	5 57	5 39	rises.
7	W	♄ Edgar A. Poe d., 1849	♋	6 3	5 32	6 16	12	5 58	5 38	6 24
8	Th	♄ stationary. ☾ gr. lib. E.	♋	6 4	5 30	6 52	12	5 58	5 36	7 5
9	Fr	Weyler recalled, 1897. ☾	♋	6 5	5 29	7 32	12	5 59	5 35	7 48
10	Sa	♄ stationary.	♋	6 6	5 28	8 19	13	6 0	5 34	8 37

41. 18th Sunday after Trinity. Matt. 22. 11h. 19m. Day's Length, 11h. 32m.

11	Su	♄ stationary.	♋	6 7	5 26	9 11	13	6 1	5 33	9 30
12	M	♄ ♀ ☾.	♋	6 8	5 24	10 9	13	6 1	5 32	10 28
13	Tu	♄ 13th. Just. Miller d. '90	♋	6 9	5 22	11 12	14	6 2	5 30	11 30
14	W	♄ ♀ in perihelion.	♋	6 11	5 21	morn	14	6 3	5 29	morn
15	Th	Bank panic, 1857.	♋	6 12	5 19	0 19	14	6 4	5 28	0 34
16	Fr	☾ in perigee.	♋	6 13	5 18	1 29	14	6 4	5 27	1 39
17	Sa	♄ ♀ ☾.	♋	6 14	5 16	2 39	14	6 5	5 26	2 45

42. 19th Sunday after Trinity. Matt. 9. 11h. 0m. Day's Length, 11h. 18m.

18	Su	♄ gr. elong. W. 18° 14'.	♋	6 15	5 15	3 51	15	6 6	5 24	3 52
19	M	♄ ♀ ☾.	♋	6 16	5 13	4 57	15	6 7	5 23	4 54
20	Tu	♄ 20th. N.Y. panic, 1873	♋	6 17	5 12	6 6	15	6 7	5 22	5 58
21	W	♄ Bat. Trafalgar, 1805.	♋	6 18	5 11	sets.	15	6 9	5 21	sets.
22	Th	☾ gr. libration W.	♋	6 20	5 10	6 43	15	6 8	5 20	6 59
23	Fr	Gen. Junot died, 1771.	♋	6 21	5 8	7 26	15	6 10	5 19	7 44
24	Sa	♀ greatest brilliancy.	♋	6 22	5 6	8 13	16	6 10	5 18	8 52

43. 20th Sunday after Trinity. Matt. 22. 10h. 42m. Day's Length, 11h. 6m.

25	Su	♄ gr. hel. lat. N.	♋	6 23	5 5	9 3	16	6 11	5 17	9 22
26	M	Doddridge died, 1751.	♋	6 24	5 4	9 55	16	6 12	5 16	10 13
27	Tu	♄ ♀ ☉.	♋	6 25	5 2	10 49	16	6 13	5 15	11 5
28	W	♄ 28th. ♄ ♀ ☾. ☾ in apo.	♋	6 26	5 1	11 45	16	6 14	5 14	11 59
29	Th	♄ Czosz elect'd, 1901	♋	6 27	5 0	morn	16	6 15	5 13	morn
30	Fr	Boers shell Ladysmith '99	♋	6 29	4 59	0 43	16	6 15	5 12	0 52
31	Sa	♄ ♀ ☾. Halloween.	♋	6 30	4 57	1 41	16	6 16	5 11	1 48

Farm and Workshop

Herschel's Weather Table.

FOR FORETELLING THE WEATHER DURING ALL THE LUNATIONS OF EACH YEAR, FOREVER. — This table is the result of

many years' actual observation, the whole being constructed on a due consideration of the attraction of the sun and moon in their several positions respecting the earth, and will, by simple inspection, show the observer what kind of weather will most probably follow the entrance of the moon into any of its quarters.

IF THE NEW MOON, FIRST QUARTER, FULL MOON OR LAST QUARTER HAPPENS	IN SUMMER		IN WINTER	
Bet. midnight and 2 a. m.	Fair	Fair	Frost unless wind south west.	
" 2 and 4, morning ..	Cold and showers.	Cold and showers.	Snow and stormy.	
" 4 and 6, " ..	Rain	Rain	Rain.	
" 6 and 8, " ..	Wind and rain ..	Wind and rain ..	Stormy.	
" 8 and 10, " ..	Changeable	Changeable	Cold rain if wind W.; snow if E.	
" 10 and 12, " ..	Frequent showers	Frequent showers	Cold and high wind.	
" 12 and 2, afternoon.	Very rainy	Very rainy	Snow or rain.	
" 2 and 4, " ..	Changeable	Changeable	Fair and mild.	
" 4 and 6, " ..	Fair	Fair	Fair.	
" 6 and 8, " ..	Fair if wind n. w.	Fair if wind n. w.	Fair and frosty if wind N. or N. E.	
" 8 and 10, " ..	Rainy if s. or s. w.	Rainy if s. or s. w.	Rain or snow if S. or S. W.	
" 10 and midnight ..	Fair	Fair	Fair and frosty.	

Our Colonial Trade.

The total value of imports and exports of merchandise (1899-1900),

from and to the following countries, which now belong to the United States, may be found stated below:

JUNE 20TH	CUBA		PORTO RICO	
	IMPORTS	EXPORTS*	IMPORTS	EXPORTS*
1889..	\$ 52,130,623	\$ 11,691,311	\$ 3,707,373	\$ 2,224,931
1890..	53,801,591	13,084,415	4,053,626	2,297,538
1891..	61,714,395	12,224,888	3,164,110	2,155,234
1892..	77,931,671	17,963,570	3,248,007	2,856,003
1893..	78,706,506	24,157,698	4,008,623	2,510,607
1894..	75,678,261	20,125,321	3,135,634	2,720,508
1895..	52,871,259	12,807,961	1,506,512	1,833,544
1896..	40,017,730	7,530,880	2,296,653	2,102,094
1897..	18,406,815	8,259,776	2,181,024	1,988,888
1898..	15,232,477	9,561,656	2,414,356	1,505,946
1899..	25,411,410	18,615,707	3,179,827	2,685,848
1900..	31,371,704	26,513,613	3,078,415	4,640,431

	HAWAIIAN IS.		PHILLIPPINE IS.	
	IMPORTS	EXPORTS*	IMPORTS	EXPORTS*
1889..	\$ 12,847,740	\$ 3,375,661	\$ 10,593,172	\$ 179,647
1890..	12,313,909	4,711,417	11,592,626	122,276
1891..	13,895,597	5,107,212	5,167,209	124,572
1892..	8,075,882	3,781,628	6,308,653	60,914
1893..	9,146,767	2,827,663	9,159,857	154,378
1894..	10,065,317	3,306,187	7,008,342	145,466
1895..	7,888,961	3,723,057	4,731,366	119,255
1896..	11,757,704	3,985,707	4,982,857	132,446
1897..	13,687,799	4,690,075	4,383,740	94,597
1898..	17,187,380	5,907,155	3,830,415	127,340
1899..	17,831,463	9,305,460	4,409,774	404,171
1900..	20,707,903	13,509,148	5,971,208	2,640,449

*Domestic and Foreign Exports.

Chemical Names for Common Drugs.

Blue Vitriol
—Sulphate
Calomel —
Chloride of
Mercury.

Chalk—

Carbonate of Lime. •Corrosive Sublim-
ate—Bi. chloride of Mercury. Epsom
Salts—Sulphate of Magnesia. Glaub-
ers Salts—Sulphate of Sodium.
Green Vitriol—Ferrous Sulphate. Lime
—Oxide of Calcium. Lunar Caustic—
Nitrate of Silver. Oil of Vitriol—Sul-
phuric Acid. Red Lead—Oxide of
Lead. Salt, (common)—Chloride of
Sodium. Salt Petre—Nitrate of Pot-
assium. Soda—Carbonate of Sodium.
Sugar of Lead—Acetate of Lead. Ver-
digris—Sub.—acetate of Copper. Vin-
egar—Acetic Acid. White Vitriol—
Sulphate of Zinc. White Zinc—Oxide
of Zinc.



MOON'S PHASES.

	BOSTON	NEW YORK	CHICAGO
	D. H. M.	D. H. M.	D. H. M.
F.M.	5 0 27 M.	5 0 27 M.	4 11 27 A.
L.Q.	11 9 46 A.	11 9 46 A.	11 8 46 A.
N.M.	19 0 10 M.	19 0 10 M.	18 11 10 A.
F.Q.	27 0 37 M.	27 0 37 M.	26 11 37 A.

MOON'S SIGNS.

LATITUDE

Of New York City,
N. England, N.
Jersey, Conn.,
Pa., Ohio, Ind.,
Ill., Neb. and N.
Cal.

LATITUDE

Of Charleston, N.
Car., Miss., Ga.,
Ala., Arkansas,
New Mexico and
S. Cal.

D. M.	D. W.	HISTORICAL EVENTS.
-------	-------	--------------------

Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.

SUN EAST.

Sun rises.	Sun sets.	Moon sets.
H. M.	H. M.	H. M.

44. 21st Sunday after Trinity. John 4. 10h. 25m. Day's Length, 10h. 53m.

1 Su	All Saints Day.	☾	6 31	4 56	2 42	16	6 17	5 10	2 44
2 M	J. K. Polk born, 1795.	☾	6 32	4 55	3 40	16	6 18	5 9	3 39
3 Tu	☾ gr. libration E.	☾	6 33	4 54	4 41	16	6 19	5 8	4 35
4 W	Peabody died, 1889.	☾	6 35	4 53	5 44	18	6 20	5 7	5 35
5 Th	☾ 5th. Bat. Ink'man '53	☾	6 36	4 52	rises.	16	6 21	5 6	rises.
6 Fr	☾ Lincoln elected, '60.	☾	6 37	4 50	6 14	16	6 22	5 6	6 32
7 Sa	☾ in ☾.	☾	6 38	4 49	7 5	16	6 23	5 5	7 24

45. 22d Sunday after Trinity. Matt. 18. 10h. 9m. Day's Length, 10h. 40m.

8 Su	☾ ☾ ☾.	☾	6 39	4 48	8 2	16	6 24	5 4	8 22
9 M	Fire at Boston, 1872.	☾	6 40	4 47	9 6	16	6 24	5 3	9 24
10 Tu	☾ stationary. ☾ in per.	☾	6 42	4 46	10 11	16	6 25	5 2	10 27
11 W	☾ 11th. H. Bessemer d'98	☾	6 43	4 45	11 19	16	6 26	5 2	11 31
12 Th	☾ Paris Ex. closed, '00.	☾	6 44	4 44	morn	16	6 27	5 1	morn
13 Fr	Meteoric sh'rs, '33 & '37.	☾	6 45	4 43	0 29	16	6 28	5 0	0 36
14 Sa	Chas. Carroll died, 1832.	☾	6 46	4 43	1 38	16	6 29	5 0	1 41

46. 23d Sunday after Trinity. Matt. 23. 9h. 55m. Day's Length, 10h. 29m.

15 Su	☾ ☾ ☾.	☾	6 47	4 42	2 44	15	6 30	4 59	2 43
16 M	John Bright born, 1811.	☾	6 48	4 41	3 49	15	6 31	4 59	3 44
17 Tu	☾ in ☾.	☾	6 50	4 40	4 58	15	6 32	4 58	4 48
18 W	☾ ☾ ☾. ☾ gr. libration W.	☾	6 51	4 40	6 4	15	6 33	4 58	5 50
19 Th	☾ 19th. Garfield b., 1831	☾	6 52	4 39	sets	15	6 34	4 57	sets
20 Fr	☾ Ch'n mas. at Vau, '95	☾	6 53	4 38	6 4	14	6 34	4 57	6 23
21 Sa	☾ ☾ ☾. Superior.	☾	6 55	4 38	6 51	14	6 35	4 56	7 11

47. 24th Sunday after Trinity. Matt. 9. 9h. 41m. Day's Length, 10h. 20m.

22 Su	☾ ☾ ☾.	☾	6 56	4 37	7 44	14	6 36	4 56	8 2
23 M	Battle Chattanooga, '63.	☾	6 57	4 37	8 38	14	6 37	4 56	8 55
24 Tu	☾ ☾ ☾.	☾	6 58	4 36	9 33	13	6 38	4 56	9 48
25 W	☾ in apogee.	☾	6 59	4 36	10 31	13	6 39	4 55	10 42
26 Th	Great tempest, 1703.	☾	7 0	4 36	11 28	13	6 40	4 55	11 36
27 Fr	☾ 27th. ☾ ☾ ☾.	☾	7 1	4 35	morn	13	6 41	4 55	morn
28 Sa	☾ ☾ gr. elong W. 46° 46'	☾	7 2	4 35	0 27	12	6 42	4 54	0 31

48. 1st Sunday in Advent. Matt. 21. 9h. 31m. Day's Length, 10h. 12m.

29 Su	Horace Greeley died, '72.	☾	7 3	4 34	1 26	12	6 42	4 54	1 26
30 M	St. Andrew.	☾	7 4	4 34	2 22	11	6 43	4 54	2 19

Unusual and Strange Weights and Measures.

A tun is 2 pipes, 4 hogsheads, 3 puncheons, 8 barrels, or 252 gallons.

A pipe of port is 138 gallons; of Lisbon, 140; Maderia, 110, and Sherry, 120. The hogshead of claret is 57 gallons, and the aum of Hock 36 gallons; Teneriff, 120 and Cape, 20.

A tun of wine is 2 pipes, and each pipe 2 hogsheads of 63 gallons.

A tun of beer is 2 butts, and each butt 2 hogsheads of 54 gallons.

Wood, the fuel of France, is sold by the corde of 576 square feet; and 80 square cordes make what is called a journal.

At 70° the specific gravity of water is 0.99913; at 38° is 1.00113; and at 54° is 1.00064. The difference between 62° and 39° in a gallon of 277.276 inches is one-third of a cubic inch.

A last is a commercial measure of 12 barrels of soap, ashes, herrings, etc.; ten quarters of corn or two cart loads; twenty-four barrels of gunpowder; twelve sacks of wool; and 1,700 pounds of flax or feathers.

A Scotch pint is four English pints.

A Scotch pint is 105 cubic inches, and a wheat firiot 21¼ Scotch pints.

A Scotch quart 206.8 cubic inches.

A tub of butter is 84 pounds, and a firkin 56 pounds.

A Scotch boll is an English sack.

A soldier's canteen contains three pints.

A litre is 61.0279 English cubic inches or 2½ wine pints.

The stere, or cubical metre, is 35.3171 cubic feet, English.

A Roman quadrantal was a cube containing 80 pounds of water, or 48 sextaries and 8 congii. A gower was 7 pints.

The Ephah was the sixth part, or 1747.7 cubic inches, nearly an English cubic foot.

The Winchester bushel is 35.2466 litres. The stere is 35.317 cubic feet.

The American quintal is 100 pounds.

The Mysore cutcha seer is 9 ounces, 11½ drachms.

A bale of Egyptian cotton is 90 pounds; of Brazil, 160; of Georgian and Sea Islands, 280; Orleans, 300; East India, 300; West India, 350 to 400.

A pack of sheep's wool is 240 pounds.

The livre, or French pound, is 500 grammes, or 7,714 grains English, or 1 pound, 1½ ounce, 10 drachms, avoirdupois. The quintal, of 100 kilogrammes, is 220 486 pounds.

The Bengal mound is 74 pounds, 10 ounces, 10½ drachms, avoirdupois; the seer, 1 pound, 13 ounce, 13 866 drachms; the chattock, 1 ounce, 13.366 drachms.

The Baza mound is 82 pounds, 2 ounces.

A seam of glass is 24 stone of 5 pounds each.

The weight of a cubic inch of distilled water, in a vacuum is 252.722 grains; and in air is 252.456 grains.

The quintal is 10 mirio-grammes, or 2 hundred weight, or 224 pounds, English, nearly.

A sack of wool is 22 stone, of 14 pounds, or 308 pounds. In Scotland, it is 24 stone of 16 pounds.

A pack of wool is 17 stone, 2 pounds, or a horseload.

A tod of wool is 2 stone of 14 pounds each, and a sack is 13 tod; 12 sacks is a last, or 4,368 pounds.

50 or 60 pounds is a truss of hay, old or new, and 40 pounds a truss of straw; 36 trusses being a load.

A Spanish quintal is 312 Spanish pounds. The arroba is 25 Spanish pounds of 6,554 grains each; 6 arrobas make a quintal.

The Portuguese arroba contains 32 Lisbon pounds of 7,005 grains.

The Venetian mirre contains 30 pounds of 4,215 grains.

The shippondt of the northern nations, is, in Sweden, for copper, 320 pounds, of 9,211 grains, and for provisions 400 such pounds. At Riga it is 400 pounds of 6,149 grains. At Hamburg 300 pounds of 7,315 grains.

100 pounds English is equal to 112½ pounds Russian, to 93 pounds, 5 ounces Hamburger, and to 132 pounds, 11 ounces of Leghorn, and 104 pounds, 13 ounces, Portugese, and 91 pounds 8 ounces at Amsterdam

The commercial pound of Amsterdam is 7,636 grains, and the Troy pound is equal to 7,602 grains.

The Dutch stone is 16 pounds. The Norway pound is 7,833 grains. The Spanish pound is 7,038 grains.

The Chinese kin is 5,802 grains, or 375.2 French grammes.

The Turkish pound is 7,578 grains. The Danish, 6,941 The Irish, 7,774. The Naples, 4,952.

The Scotch pound, Troy is 7,620 grains. The Smyrna pound, 6,944.



MOON'S PHASES.					LATITUDE					LATITUDE							
					Of New York City, N. England, N. Jersey, Conn., Pa., Ohio, Ind., Ill., Neb. and N. Cal.					Of Charleston, N. Car., Miss., Ga., Ala., Arkansas, New Mexico and S. Cal.							
BOSTON		NEW YORK		CHICAGO		Sun rises.		Sun sets.		Moon sets.		Sun rises.		Sun sets.		Moon sets.	
D. H. M.	D. H. M.	D. H. M.	D. H. M.	D. H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	
F.M.	4 1 13 A.	4 1 13 A.	4 0 13 A.		7 5	4 34	3 26	11	6 14	4 54	3 19						
L.Q.	11 5 53 M.	11 5 53 M.	11 4 53 M.		7 6	4 34	4 31	11	6 45	4 54	4 20						
N.M.	18 4 26 A.	18 4 26 A.	18 3 26 A.		7 7	4 33	5 36	10	6 46	4 54	5 21						
F.Q.	26 9 22 A.	26 9 22 A.	26 8 22 A.		7 8	4 33	rises.	10	6 46	4 54	rises.						
					7 9	4 33	5 50	10	6 47	4 54	6 10						
D. M.	W.	HISTORICAL EVENTS.			MOON'S SIGNS.					SUN EAST.							
1 Tu		☾ greatest libration E.			☾	7 5	4 34	3 26	11	6 14	4 54	3 19					
2 W		John Brown hung, 1859.			☾	7 6	4 34	4 31	11	6 45	4 54	4 20					
3 Th		Illinois admitted, 1818.			☾	7 7	4 33	5 36	10	6 46	4 54	5 21					
4 Fr		4th. Carlyle b., 1795.			☾	7 8	4 33	rises.	10	6 46	4 54	rises.					
5 Sa		Mozart died, 1792.			☾	7 9	4 33	5 50	10	6 47	4 54	6 10					
49. 2d Sunday in Advent. Luke 21. gh. 23m. Day's Length, 10h. 6m.																	
6 Su		♂ ♀ ☾.			☾	7 10	4 33	6 54	9	6 48	4 54	7 12					
7 M		☾ ☾ ☾. ☾ in perigee.			☾	7 11	4 33	8 1	9	6 49	4 54	8 17					
8 Tu		♂ ♀ ☾.			☾	7 12	4 33	9 9	8	6 50	4 54	9 23					
9 W		Milton born, 1608.			☾	7 13	4 33	10 20	8	6 51	4 54	10 28					
10 Th		Peace tr. signed Paris, '98			☾	7 13	4 33	11 30	7	6 51	4 54	11 35					
11 Fr		11th. ♀ in perihelion			☾	7 14	4 33	morn	7	6 52	4 54	morn					
12 Sa		R. Browning d., 1889.			☾	7 15	4 33	0 37	7	6 53	4 55	0 37					
50. 3d Sunday in Advent. Matt. 11. gh. 18m. Day's Length, 10h. 1m.																	
13 Su		Bat. Fredericksburg, 1862			☾	7 16	4 34	1 40	6	6 54	4 55	1 36					
14 M		♂ ♀ ☾. ☾ gr. libration W.			☾	7 17	4 34	2 48	6	6 54	4 55	2 39					
15 Tu		Agassiz died, 1873.			☾	7 18	4 34	3 52	5	6 55	4 55	3 40					
16 W		Ember Day.			☾	7 18	4 35	4 55	5	6 55	4 56	4 40					
17 Th		Whittier born, 1807.			☾	7 19	4 35	5 54	4	6 56	4 56	5 36					
18 Fr		18th. Ember Day.			☾	7 20	4 35	6 50	4	6 57	4 57	6 31					
19 Sa		Ember Day.			☾	7 20	4 36	sets	3	6 57	4 57	sets					
51. 4th Sunday in Advent. John 1. gh. 15m. Day's Length, 10h. 0m.																	
20 Su		♂ ♀ ♀. ♂ ♀ ☾.			☾	7 21	4 36	6 29	3	6 58	4 58	6 47					
21 M		St. Thomas.			☾	7 21	4 37	7 23	2	6 58	4 58	7 39					
22 Tu		☾ ent. ☾. Winter begins.			☾	7 21	4 38	8 19	2	6 59	4 58	8 32					
23 W		☾ in apogee.			☾	7 22	4 38	9 16	1	6 59	4 59	9 26					
24 Th		Thackeray died, 1863.			☾	7 22	4 39	10 16	1	7 0	5 0	10 21					
25 Fr		♂ ☾ ☾. Christmas.			☾	7 23	4 39	11 13	0	7 0	5 0	11 15					
26 Sa		26th. St. Stephen.			☾	7 23	4 40	morn	1	7 1	5 1	morn					
52. 1st Sunday after Christmas. Luke 2. gh. 18m. Day's Length, 10h. 0m.																	
27 Su		St. John Evangelist.			☾	7 23	4 41	0 10	1	7 1	5 1	0 9					
28 M		Innocents.			☾	7 24	4 42	1 9	1	7 1	5 2	1 3					
29 Tu		☾ gr. libration E.			☾	7 24	4 42	2 11	2	7 2	5 3	2 2					
30 W		Monitor sunk, 1862.			☾	7 24	4 43	3 15	2	7 2	5 3	3 1					
31 Th		West Va. admitted, 1862.			☾	7 24	4 43	4 20	3	7 2	5 4	4 3					

Cuba's Commerce.

A comparative statement of the commerce of Cuba for the fiscal years 1900 and 1901, issued by the Division of Insular Affairs, War Department, show that the total value of merchandise imported during the fiscal year 1901 was \$65,050,141, as against \$71,681,187 for 1900; and the total value of merchandise exported during 1901 was \$63,115,821 as against \$45,228,846 for 1900. This indicates a decrease of 9.3 per cent. in the value of imports and an increase of 39.5 per cent. in the value of exports.

The value of imports of merchandise from the several countries respectively during the fiscal year 1901, was as follows: United States, \$28,078,702, a decrease of 6.7 per cent.; United Kingdom, \$9,280,949, a decrease of 22.4 per cent.; Germany, \$3,403,031, an increase of 29.4 per cent.; France, \$2,922,829, a decrease of 18.8 per cent.; Spain \$9,536,045, a decrease of 13.4 per cent; other countries, \$11,825,585; a decrease of 4.6 per cent.

The value of exports of merchandise to the several countries respectively during the fiscal year 1901, was as follows: United States, \$45,497,468, an increase of 31.4 per cent.; United Kingdom, \$5,871,717, an increase of 34.9 per cent.; Germany, \$6,720,480, an increase of 192.6 per cent; France, \$1,402,465, an increase of 22.4 per cent.; Spain, \$579,302, a decrease of 29.2 per cent.; other countries, \$3,049,389, an increase of 52.9 per cent.

Twentieth Century Manufacturing.

The number of manufacturing establishments in 1890 was 355,415. At the present time the Census Office has received the schedules of 653,000, but probably not more than 500,000 of these are for establishments comparable with those counted 1890. Taking this calculation as fairly correct, however, there has been a gain in the ten years of nearly 150,000 establishments engaged in the manufacture of goods. The total value of products including receipts from custom work and repairing, in 1890 was \$9,372,437,283. Basing an estimate on the increase in the number of establishments and the tabulations of States already completed a most conservative figure for the value of all products in 1900 is \$15,000,000,000.

The statistics of manufactured products show that the United States is

easily in the supremacy relative to any country in the world. The commercial statistics are equally satisfactory. For the calendar year 1900 our exports of domestic products were greater than those of any other country, their total value for that year being \$1,453,013,659. Great Britain ranked next, with \$1,418,348,000, and Germany next, with \$1,050,611,000.

Weights and Volume

The following table shows the weight in POUNDS of a cubic foot of the following substances.

Name	Pounds
Loose Earth or Sand.	95
Common Soil.	124
Strong Soil.	127
Clay.	135
Clay and Stones.	160
Mason's Work.	205
Distilled Water.	62.5
Pure Gold.	1203.625
Pure Silver.	654.8
Cast Iron.	450.45
Steel.	489.8
Lead.	709.5
Platina.	1218.75
Copper.	486.75
Cork.	15
Portland Stone.	157.5
Tallow.	59
Oak.	73.15
Brick.	125
Crown Glass.	180.75
Fir.	34.375
Mahogany.	66.4
Air.	0.0753

Wealth.

An estimate regarded as approximately reliable places the aggregate wealth of leading countries at the following figures.

United States.	100,475,000,000
Great Britain.	60,600,000,000
France.	55,300,000,000
Germany.	45,600,000,000
Russia.	30,715,000,000
Austria.	25,065,000,000
Italy.	15,755,000,000

No other nation is credited with more than \$15,000,000,000. The next in rank to Italy is Spain, with \$10,965,000,000, while Greece, the last and lowest in this classification is given but \$3,455,000,000. Spain lost greatly through the recent war with the United States,

and Great Britain will be poorer by \$1,000,000,000 when she winds up the account of the Boer war. The last decade of the nineteenth century produced more wealth in the whole world than any quarter of a century ever known.

Ohio Manufacturing.

A general idea of the increase of labor and manufacturing may be gained by statistics gleaned from Ohio records by the State Labor Commissioner for 1899 and 1900. The table shows steady and marvelous increase on all points covered. It is as follows:

	1899.	1900	Increase
Number manufacturing establishments reported.....	2,362	2,528	158
Number males employed (monthly average).....	124,286	136,555	12,269
Number females employed (monthly average).....	25,102	28,154	3,058
Amount capital invested.....	\$256,453,091.00	\$269,763,468.00	\$13,310,377.00
Value of goods manufactured.....	305,258,061.85	340,501,256.67	35,243,194.82
Value of material used.....	163,078,190.49	179,859,076.12	16,780,905.63
Amount paid in wages for labor.....	66,093,033.85	73,627,885.16	7,534,851.31
Amount paid managers, office help, etc.....	17,553,377.28	20,433,469.08	2,880,091.80
Value manufactured articles on hand Jan. 1, 1899 and 1900.....	33,827,615.95	36,577,010.48	2,749,394.53
Value manufactured articles on hand Jan. 1, 1900 and 1901.....	36,428,672.17	39,477,495.95	3,048,823.78
Value of materials on hand Jan. 1, 1899 and 1900.....	35,833,823.90	46,761,682.05	10,927,858.15
Value of materials on hand Jan. 1, 1900 and 1901.....	43,935,659.81	47,214,020.91	3,278,361.10

Business Laws in Daily Use.

The following compilation of business law contains the essence of a large amount of legal verbiage.

If a note is lost or stolen, it does not release the maker; he must pay it, if the consideration for which it was given and the amount can be proven.

Notes bear interest only when so stated.

Principals are responsible for the acts of their agents.

Each individual in a partnership is responsible for the whole amount of the

debts of the firm, except in cases of special partnership.

Ignorance of the law excuses no one.

The law compels no one to do impossibilities.

An agreement without consideration is void.

A note made on Sunday is void.

Contracts made on Sunday cannot be enforced.

A note by a minor is voidable. A contract made with a minor is void.

A contract made with a lunatic is void.

A note obtained by fraud, or from a person in a state of intoxication cannot be collected.

It is a fraud to conceal a fraud.

Signatures made with a lead pencil are good in law.

A receipt for money is not always conclusive.

The acts of one partner bind all the rest.

"Value received" is usually written in a note, and should be, but it is not necessary. If not written, it is presumed by law, or may be supplied by proof.

The maker of an "accommodation" bill or note (one for which he has received no consideration, having lent his name or credit for the accommodation of the holder) is not bound to the person accommodated, but is bound to all other parties, precisely as if there was a good consideration.

No consideration is sufficient in law if it be illegal in its nature.

Checks or drafts must be presented for payment without unreasonable delay.

Checks or drafts should be presented during business hours; but in this country, except in the case of banks, the time extends through the day and evening.

If the drawee of a check or draft has changed his residence, the holder must use due or reasonable diligence to find him.

If one who holds a check, as payee or otherwise, transfers it to another, he has a right to insist that the check be presented that day, or, at farthest, on the day following.

A note indorsed in blank (the name of the indorser only written) is transferable by delivery, the same as if made payable to bearer.

If time of payment of a note is not made, it is payable on demand.

The time of payment of a note must not depend upon a contingency. The promise must be absolute.

A bill may be written upon any kind of paper, either with ink or pencil.

The payee should be named in the note, unless it is payable to bearer.

An indorsee has a right of action against all whose names were on the bill when he received it.

If the letter containing a protest of non-payment be put in the post office, any miscarriage does not affect the party giving notice. Notice of protest may be sent either to the place of business or residence of the party notified.

The holder of a note may give notice of protest either to all the previous indorsers or only to one of them; in case of the latter he must select the last indorser, and the last must give notice to the last before him, and so on. Each indorser must send notice the same day or the day following. Neither Sunday nor any legal holiday is counted in reckoning time in which notice is to be given.

The loss of a note is not sufficient excuse for not giving notice of protest.

If two or more persons, as partners, are jointly liable on a note or bill, due notice to one of them is sufficient.

If a note or bill is transferred as security, or even as payment of a pre-existing debt, the debt revives if the note or bill be dishonored.

An indorsement may be written on the face or back.

An indorser may prevent his own liability to be sued by writing "without recourse" or similar words.

An oral agreement must be proved by evidence. A written agreement proves itself. The law prefers written to oral evidence, because of its precision.

No evidence can be introduced to contradict or vary a written contract; but it may be received in order to explain it when explanation is needed.

Written instruments are to be construed and interpreted by the law according to the simple customary and natural meaning of the words used.

The finder of negotiable paper, as of all other property, must make reasonable efforts to find the owner, before he is entitled to appropriate it for his own purposes. If the finder conceal it, he is liable to the charge of larceny or theft.

Joint payees of a bill or note, who are not partners, must all join in indorsement.

One may make a note payable to his own order and indorse it in blank. He must write his name across its back or face, the same as any other indorser.

After the death of a holder of a bill or note, his executor or administrator may transfer it by his indorsement.

The husband who acquires the right to a bill or note which was given to his wife, either before or after marriage, may indorse it.

"Acceptance" applies to bills and not to notes. It is an engagement on the part of the person on whom the bill is drawn to pay it according to its tenor. The usual way is to write across the face of the bill the word "accepted."

National Receipts and Expenditures.

The report of the United States Treasury Department showed a total

surplus for the fiscal year 1901, of \$77,714,984.38. The estimated surplus for the fiscal year 1902, is \$100,000,000, and for the fiscal year 1903, \$23,172,311.53.

The revenues of the government from all sources for the fiscal year 1901 were as follows:

From internal revenue.....	\$307,180,663.77
From customs.....	238,585,452.99
From profits of coinage, bullion, deposits, etc.....	12,731,256.94
From revenues of the District of Columbia.....	3,986,176.19
From fees-consular, letters patent and land.....	3,414,933.49
From sales of public lands.....	2,965,119.65
From navy pension, navy hospital clothing and deposit funds.....	1,778,454.91
From tax on national banks.....	1,681,473.05
From sales of Indian lands.....	1,493,321.24
From payment of interest by Pacific railways.....	1,316,516.62
From miscellaneous.....	841,216.03
From customs fees, fines, penalties, etc.....	711,791.43
From sales of ordnance material.....	703,054.42
From immigrant fund.....	585,082.70
From trust funds, department of State.....	537,621.58
From soldiers' permanent fund.....	492,623.66
From sales of government property.....	450,698.49
From deposits for surveying public lands.....	247,258.90
From sales of lands and buildings.....	236,655.75
From tax on seal skins, and rent of seal islands.....	232,655.75
From prize money to captors, Spanish war.....	217,490.60
From prize money to navy pension fund, Spanish war.....	217,477.76
From proceeds of Arkansas bonds redeemed.....	85,000.00
From depredations of public lands.....	75,799.70
From license fees, Territory of Alaska.....	84,087.90
From part payment Central Pacific Railroad indebtedness.....	4,576,247.10
From sale of claim of United States against Sioux City, and Pacific Railroad Company.....	2,122,841.24
From dividend received for account of Kansas Pacific Railway.....	133,932.89
From postal service.....	211,631,193.99
Total receipts.....	\$699,316,530.92

THE EXPENDITURES FOR THE SAME PERIOD WERE AS FOLLOWS:

For the civil establishment, including foreign intercourse, public buildings, collecting the revenues, District of Columbia and other miscellaneous expenses.....	\$117,327,240.89
For the military establishment, including rivers and harbors, forts, arsenals, seacoast defenses and expenses of the war with Spain and in the Philippines...	114,615,697.20
For naval establishment, including construction of new vessels, machinery, armament, equipment, improvement at navy yards, and expenses of the war with Spain and in the Philippines.....	60,506,978.47
For Indian service.....	10,896,073.35
For pensions.....	139,323,621.99
For interest on the public debt...	32,342,977.04
For deficiency in postal revenues.	4,954,762.21
For postal service.....	111,631,193.39
For total expenditures.....	\$621,598,546.54
Showing a surplus of.....	97,717,984.38

ESTIMATES FOR YEAR 1902.

RECEIPTS FOR THE FISCAL YEAR 1902 ARE ESTIMATED UPON THE BASIS OF EXISTING LAWS, AS FOLLOWS:

From customs.....	\$250,000,000.00
From internal revenue.....	282,000,000.00
From miscellaneous sources.....	40,000,000.00
From postal service.....	116,633,042.00
Total estimated revenues....	\$688,633,042.00

THE ESTIMATED EXPENDITURES FOR THE YEAR ARE AS FOLLOWS:

For the civil establishment.....	\$110,000,000.00
For the military establishment...	115,000,000.00
For the naval establishment.....	70,000,000.00
For the Indian service.....	11,000,000.00
For pensions.....	137,000,000.00
For interest on the public debt...	29,000,000.00
For postal service.....	116,634,042.00
Total estimated expenditures.	\$588,633,042.00
Or a surplus of.....	\$100,000,000.00

ESTIMATES FOR YEAR 1903.

FOR THE FISCAL YEAR 1903, THE ESTIMATED REVENUES ARE:

From customs.....	\$250,000,000.00
From internal revenues.....	290,000,000.00
From miscellaneous sources.....	40,000,000.00
From postal service.	132,020,630.00
Total estimated.. revenues.....	\$712,020,630.00

IT IS ESTIMATED THE EXPENDITURES FOR THE SAME PERIOD WILL BE AS FOLLOWS:

Legislative establishment.....	\$ 4,859,636.90
--------------------------------	-----------------

Executive establishment:

Executive proper \$	294,160.00
State Department	187,750.00
Treasury Department.....	10,174,581.00
War Department	2,211,754.26
Navy Department	535,138.00
Interior Department.....	4,963,869.00
Post Office Department.....	1,154,020.00
Department of Agriculture....	5,509,540.00
Department of Justice.....	236,410.00
Department of Labor.....	190,580.00

Judicial establishment.....	25,457,806.26
Foreign intercourse.	726,520.00
Military establishment.....	2,038,578.76
Naval establishment	99,849,436.45
Indian affairs.....	73,202,977.63
Pensions.....	7,124,271.09
	139,846,480.00

Public Works:

Legislative.....	5,500.00
Treasury Department.....	8,726,876.73
War Department	49,914,383.40
Navy Department	25,708,005.00
Interior Department.....	507,100.00
Department of Justice.....	203,000.00

Miscellaneous.....	85,064,865.13
Legislative.....	5,322,962.10
Treasury Department.....	16,078,732.00
War Department	6,098,523.15
Interior Department.....	5,027,815.00
Department of Justice.....	5,670,900.80
District of Columbia.....	7,826,016.00

Postal service, including \$3,710,947.00 deficiency in postal revenues.....	46,024,948.25
	134,731,576.00

Permanent annual appropriations:

Interest on the public debt....	27,500,000.00
Refunding customs internal revenue, etc....	8,805,000.00
Collecting revenue from customs.....	5,550,000.00
Miscellaneous....	28,116,200.00

Total estimated appropriations, exclusive of sinking fund	69,921,220.00
	\$688,848,318.47
Or an estimated surplus of.....	\$ 23,172,311.53

Prize Money and Bounties to Naval Heroes Engaged In Spanish War.

Every man engaged in the operations of the fleets during the Spanish war, will receive a bounty or a prize, if he is lucky enough to have been in a naval action in which captures were made. The total prize money decreed by the courts for the entire Spanish war was \$290,082.41. The total amount of bounties decreed by the court of claims was \$426,300. Of this there have been decreed or paid to the higher officers of the fleets and vessels engaged in the naval campaigns, the following :

THE SANTIAGO CAMPAIGN.

BOUNTY MONEY, SANTIAGO, JULY 3, '98.					
NAME OF OFFICER.	RANK.	Amt. allowed and yet to be paid. Jan. 1, 1902.	Bounty for Manzanillo. June 30 and July 18, 1898, and Nipe Bay. (Amt p'd)	Prize money for vessels captured by North Atlantic fleet (Amt p'd)	Total paid to Jan. 1, 1902.
W. T. Sampson.....	Fleet Admiral.....	\$ 8,335.00*	\$3,330.00	\$14,132.44	\$25,797.44
W. S. Schley.....	Div. Commander.....	3,334.00		149.53	149.53
F. E. Chadwick.....	Fleet Captain.....	1,667.00	666.00	1,584.98	
F. E. Chadwick.....	Captain.....	2,654.50		11,775.10	14,026.08
F. A. Cook.....	Captain.....	2,100.32			
R. Evans.....	Captain.....	2,166.40			
C. E. Clark.....	Captain.....	1,980.60			
J. W. Philip.....	Captain.....	1,740.28			
C. D. Sigbee.....	Captain.....			976.88	976.88
H. C. Taylor.....	Captain.....	2,152.89			
R. Wainwright.....	Commander.....	435.68			
J. L. Hannum.....	Commander.....	336.31			
S. Schroeder.....	Commander.....	280.83			
A. Sharp.....	Commander.....	339.83			
J. C. Watson.....	Div. Commander.....			18.35	18.35
J. G. Eaton.....	Div. Commander.....	686.80			

THE MANILA CAMPAIGN.

BOUNTY MONEY, MANILA BAY, MAY 1, '98.

NAME OF OFFICER.	RANK.	Amount paid to Jan. 1, 1902.
George Dewey.....	Admiral.....	\$ 9,570.00
C. V. Gridley.....	Captain.....	4,867.38
J. B. Coghlan.....	Captain.....	3,027.32
F. Wildes.....	Captain.....	2,749.41
N. M. Dyer.....	Captain.....	4,140.10
A. Walker.....	Captain.....	1,982.50
E. P. Wood.....	Commander.....	1,473.01
	* *	
D. B. Hodgdon.....	Captain.....	900.02
J. Entwistle.....	Chief Engineer.....	875.47
T. N. Brumby.....	Lieutenant.....	517.32
H. H. Caldwell.....	Ensign.....	278.56
B. R. Lamberton.....	Commander.....	676.40
B. R. Lamberton.....	Fleet Captain.....	1,914.00
J. A. Norris.....	Lieutenant Commander.....	587.12

* Jan. 1, 1902, Admiral Sampson had already been paid his bounty money for Santiago to the amount of \$8,335 by special decree of the court, but none of the other officers in this list had been so fortunate.

** As captain of the McCulloch, United States Revenue Cutter Service, Capt. Higginson's name does not appear on any prize or bounty list. The Massachusetts was at Guantanamo coaling at time of the battle.

The total amount of bounty money to be paid the remainder of the Santiago officers and men is \$136,694, to be apportioned among the thirteen ships according to their annual salary rolls. These rolls amount to \$1,788,373.20, paid among the ships as follows:

New York.....	\$283,811.60
Oregon.....	213,446.00
Indiana.....	230,964 00
Gloucester.....	186,699.20
Hist.....	30,128.00
Resolute.....	73,680.00
Brooklyn.....	234,979.60
Iowa.....	232,413 20
Texas.....	186,699.20
Vixen.....	36,402.00
Harvard.....	179,029.60
Fern.....	29,352.00

If we divide \$136,694 by this total of \$1,788,373.20, we will get the percentage which will go to each dollar of salary paid. This percentage we find to be .076434829. It must be carried out to this number of figures to make each man's bounty money come out even to the cent. If each man multiplies his annual salary by this per cent. he will get the total amount of the bounty due him.

Bounty money is fixed at \$100 a head for the number of Spaniards opposed to the sailors in the conflicts for which bounty is paid. Prize money is money realized from the sale of ships, guns, munitions, cargoes, etc. captured by the men of a fleet or vessel on cruise or in action. This prize money is divided first among the vessels, next among the men. The commanding officer of a fleet or squadron gets one-twentieth; the commanding officer of a division gets one-fiftieth, the fleet captains one one-hundredth; the commander of a vessel one-tenth of the award to the vessel if in a fleet, three-twentieths if his boat is alone. The balance is awarded to the men in proportion to their pay.

All of Dewey's men were paid their bounties promptly. The prize money to them was not paid so promptly, because there was a dispute as to the stores at Cavite being a legal naval prize. The cost of raising and repairing vessels sunk in Manila Bay must be deducted from the prize money if the sunken ships should be declared a prize. The same contest is on between Admiral Sampson and the court of claims over the sunken ships along the south coast of Cuba.

Coins of the United States, 1793-1899.

The following gives the authority

for coining, changes in weight and fineness, total amount coined and legal-tender quality:

GOLD COINS.

Double Eagle—Authorized to be coined, act of March 3, 1849; weight, 516 grains; fineness, .900. Total amount coined to June 30, 1899, \$1,460,333,360. Full legal tender.

Eagles—Authorized to be coined, act of April 2, 1792; weight, 270 grains; fineness, $916\frac{2}{3}$; weight changed, act of June 28, 1834, to 258 grains; fineness changed, act of June 28, 1834, to .899225; fineness changed, act of Jan. 18, 1837, to .900. Total amount coined to June 30, 1899, \$297,281,820. Full legal tender.

Half-Eagles—Authorized to be coined, act of April 2, 1792; weight, 135 grains; fineness $916\frac{2}{3}$; weight changed, act of June 20, 1834, to 129 grains; fineness changed, act of June 28, 1834, to .299225; fineness changed, act of Jan. 18, 1837, to .900. Total amount coined to June 30, 1899, \$251,537,490. Full legal tender.

Quarter-Eagles—Authorized to be coined, act of April 2, 1792; weight, 67.5 grains; fineness $916\frac{2}{3}$; weight changed, act of June 28, 1834, to 64.5 grains fineness; changed, act of June 28, 1834, to .899225; fineness changed, act of Jan. 18, 1837, to .900. Total amount coined to June 30, 1899, \$28,879,620. Full legal tender.

Three Dollar Pieces—Authorized to be coined, act of Feb. 21, 1853; weight 77.4 grains; fineness .900; coinage discontinued, act of Sept. 26, 1890. Total amount coined, \$1,619,376. Full legal tender.

One Dollar—Authorized to be coined, act of March 3, 1849; weight. 25.8 grains; fineness, .900; coinage discontinued, act of Sept. 28, 1890. Full amount coined, \$19,499,337. Full legal tender.

SILVER COINS.

Dollar—Authorized to be coined, act of April 2, 1792; weight, 416 grains; fineness, .8924; weight changed, act of Jan. 18. 1837, to $412\frac{1}{2}$ grains; fineness changed, act of Jan. 18, 1837, to .900; coinage discontinued, act of Feb. 12, 1873. Total amount coined to Feb. 12, 1873, \$8,031,238. Coinage reauthorized, act of Feb. 28, 1878. Coinage discontinued after July 1, 1891, except for certain purposes, act of July 19, 1890. Amount coined to June 30, 1899,

\$488,282,469. Full legal tender, except when otherwise provided in the contract.

Trade Dollar—Authorized to be coined, act of Feb. 12, 1873; weight, 420 grains; fineness, .900; legal tender limited to \$5, act of June 22, 1874 (rev. stat.); coinage limited to export demand and legal tender quality repealed, joint resolution, July 22, 1876; coinage discontinued, act of Feb. 19, 1887. Total amount coined, \$35,965,924.

Half-dollar—Authorized to be coined, act of April 2, 1792: weight, 208 grains; fineness, .892.4; weight changed, act of Jan. 18, 1837, to 206¼ grains; fineness changed, act of Jan. 18, 1837, to .900; weight changed, act of Feb. 12, 1873, to 12½ grams, or 192.9 grains. Total amount coined to June 30, 1899, \$142,144,702. Legal tender, \$10.

Columbian Half-Dollar—Authorized to be coined, act of Aug. 5, 1892; weight, 192.9 grains; fineness, .900. Total amount coined, \$2,501,152.50. Legal tender, \$10.

Quarter-Dollar—Authorized to be coined, act of April 2, 1792; weight, 104 grains; fineness, .892.4; weight changed, act of Jan. 18, 1837, to 103½ grains; fineness changed, act of Jan. 13, 1837, to .900; weight changed, act of Feb. 21, 1853, to 96 grains; weight changed, act of Feb. 12, 1873, to 6¼ grams, or 96.45 grains. Total amount coined to June 30, 1899, \$58,957,135. Legal tender, \$10.

Columbian Quarter-Dollar—Authorized to be coined, act of March 3, 1893; weight, 96.45 grains; fineness, .900. Total amount coined, \$10,005.75. Legal tender, \$10.

Twenty-cent piece—Authorized to be coined, act of March 3, 1875; weight, 5 grams or 77.16 grains; fineness, .900; coinage prohibited, act of May 2, 1878. Total amount coined, \$271,000.

Dime—Authorized to be coined, act of April 2, 1792; weight, 41.6 grains; fineness, .892.4; weight changed, act of Jan. 18, 1837, to 41¼ grains; fineness changed, act of Jan. 18, 1837, to .900; weight changed, act of Feb. 21, 1853, to 38.4 grains; weight changed, act of Feb. 12, 1873, to 2½ grams, or 38.58 grains. Total amount coined to June 30, 1899, \$33,215,762.80. Legal tender, \$10.

Half-Dime—Authorized to be coined, act of April 2, 1792: weight, 20.8 grains; fineness, .892.4; weight changed, act of Jan. 18, 1837, to 20¾ grains; fineness changed, act of Jan. 18, 1857, to .900; weight changed, act of Feb.

21, 1853, to 19.2 grains; coinage discontinued, act of Feb. 12, 1873. Total amount coined, \$4,880,219.40.

Three-cent Piece—Authorized to be coined, act of March 1, 1851; weight, 12¾ grains; fineness, .750; weight changed, act of March 3, 1853, to 11.52 grains; fineness changed, act of March 3, 1853, to .900; coinage discontinued, act of Feb. 12, 1873. Total amount coined, \$1,282,087.20.

MINOR COINS.

Five-Cent (nickel)—Authorized to be coined, act of May 16, 1866; weight, 77.16 grains, composed of 75 per cent. copper and 25 per cent. nickel. Total amount coined to June 30, 1899, \$16,429,808.50. Legal tender for \$1, but reduced to 25 cents by act of Feb. 12, 1873.

Three-Cent (nickel)—Authorized to be coined, act March 3, 1865; weight, 30 grains, composed of 75 per cent. copper and 25 per cent. nickel. Total amount coined, \$941,449.48. Legal tender for 60 cents, but reduced to 25 cents act of Feb. 12, 1873. Coinage discontinued, act of Sept. 26, 1890.

Two-Cent (bronze)—Authorized to be coined, act of April 22, 1864; weight, 96 grains, composed of 95 per cent. copper and 5 per cent. tin and zinc. Coinage discontinued, act of Feb. 12, 1873. Total amount coined, \$912,020.

Cent (copper)—Authorized to be coined, act of April 2, 1792; weight, 264 grains; weight changed, act of Jan. 14, 1793, to 208 grains; weight changed by proclamation of President, Jan. 26, 1796, in conformity with act of March 3, 1795, to 168 grains; coinage discontinued, act of Feb. 21, 1857. Total amount coined, \$1,562,887.44.

Cent (nickel)—Authorized to be coined, act of Feb. 21, 1857; weight, 72 grains, composed of 88 per cent. copper and 12 per cent. nickel. Coinage discontinued, act of April 22, 1869. Total amount coined, \$2,007,920.

Cent (bronze)—Coinage authorized, act of April 22, 1864; weight 48 grains, composed of 95 per cent. copper and 5 per cent. tin and zinc. Total amount coined to June 30, 1899, \$12,937,848.42. Legal tender, 25 cents.

Half-Cent (copper)—Coinage authorized, act of April 2, 1792; weight, 132 grains; weight changed, act of Jan. 14, 1793, to 104 grains; weight changed by proclamation of the President, Jan. 26, 1796, in conformity with act of March 3, 1795, to 84 grains; coinage discontinued, act of Feb. 21, 1857. Total amount coined, \$39,926.11.

School and Fireside

The Historic Sevens.

SEVEN WONDERS OF THE WORLD.

The Pyramids of Egypt; Pharos of Alexandria; Walls and Hanging Gardens of Babylon; Temple of Diana at Ephesus; The Statue of the Olympian Jupiter; Mausoleum of Artemisia; Colossus of Rhodes.

SEVEN WISE MEN OF GREECE.

Solon, Chilo, Pittacus, Bias, Perian-
der, Cleobulus, Thales.

SEVEN SLEEPERS.

Maximian, Denis, Malchus, John,
Martinian, Serapion, Constantine.

THE SEVEN HILLS OF ROME.

Aventine, Capitoline, Coelian, Es-
quiline, Palatine, Quirinal, Viminal.

Hints to Readers.

For clearness read
Macaulay.

For pathos read Eu-
gene Field.

For logic read Burke and Bacon.

For action read Homer and Scott.

For fun and burlesque read M. Quad.

For conciseness read Bacon and
Pope.

For pastime read Roe.

For sublimity of conception, read
Milton.

For culture read Emerson and Hol-
land.

For vivacity read Stevenson and Kip-
ling.

For imagination read Shakespeare
and Job.

For common sense read Benjamin
Franklin.

For elegance read Virgil, Milton and
Arnold.

For smoothness read Addison and
Hawthorne.

For simplicity read Burns, Whittier
and Bunyan.

For interest in common things read
Jane Austin.

For humor read Chaucer, Cervantes
and Mark Twain.

For philosophy read Mills, Spencer
and Darwin.

For the study of human nature read
Shakespeare and George Eliot.

For choice of individual words read
Keats, Tennyson and Emerson.

For loving and patient observation
of nature read Thoreau and Walton.

For hope read Drummond.

Tennyson's Lullaby.

What does little birdie say
In her nest at peep of day?
Let me fly, says little birdie,
Mother let me fly away.
Birdie rest a little longer,
Till the little wings are stronger.
So she rests a little longer
Then she flies away.

What does little baby say
In her bed at peep of day?
Baby says, like little birdie,
Let me rise and fly away.
Baby sleep a little longer,
Till the little limbs are stronger.
If she sleeps a little longer,
Baby, too, shall fly away.

A Girl's Way.

I ask her if she loves me,
She shakes her head, and when
I turn to leave she sweetly smiles,
And lures me back again.

"Alas! you love another!"
In angry tones I say;
She nods, but as I turn to leave
She sweetly bids me stay.

With outstretched arms I offer
My love—my all—to her,
And seek to clasp her, but she cries:
"Stand back! How dare you, sir?"

With sinking heart and hopeless
I turn, once more, and lo!
I hear a soft, sweet voice that says:
"I wish you wouldn't go."

I throw my arms around her,
And press her to my heart,
And, after while when she gets time,
She says: "You think you're smart!"

—S. E. Kiser, in *Chicago Record Herald*.

"Gran'ma Al'as Does."

I wants to mend my wagon,
And has to have some nails;
Jus' two, free will be plenty,
We're going to haul our rails.
The splendidest cob fences,
We're makin' ever was:
I wis' you'd help us find 'em,
Gran'ma al'as does.

My horse's name is Betsy;
She jumped and broked her head;
I put her in the stable,
And fed her milk and bread.
The stable 's in the parlor;
We didn't make no muss—
I wis' you'd let it stay there;
Gran'ma al'as does.

I's goin' to the corn field,
To ride on Charlie's plow;
I spect he'd like to have me;
I wants to go right now.
Oh, won't I gee up awful,
And whoa like Charlie whoas?
I wis' you wouldn't bozzer;
Gran'ma never does.

I wants some bread and butter;
I's hungry worstest kind;
But Taddie mustn't have none
Cause she wouldn't mind.
Put plenty sugar on it:
I tell you what, I knows
It's *right* to put on sugar,
Gran'ma al'as does.

Old Sayings.

As poor as a church mouse, as thin as
a rail;
As fat as a porpoise, as rough as a gale;
As brave as a lion, as spry as a cat;
As bright as a sixpence, as weak as a
rat.

As proud as a peacock, as sly as a fox;
As mad as a March hare, as strong as
an ox;
As fair as a lily, as empty as air;
As rich as Cræsus, as cross as a bear.

As pure as an angel, as neat as a pin;
As smart as a steel-trap, as ugly as sin;
As dead as a door-nail, as white as a
sheet;
As flat as a pancake as red as a beet.

As round as an apple, as black as your
hat;
As brown as a berry, as blind as a bat;
As mean as a miser, as full as a tick;
As plump as a patridge, as sharp as a
stick.

As clean as a penny, as dark as a pall;
As hard as a mill-stone, as bitter as
gall;
As fine as a fiddle, as clear as a bell.
As dry as a herring, as deep as a well.

As light as a feather, as firm as a rock;
As stiff as a poker, as calm as a clock;
As green as a gosling, as brisk as a bee;
And now let me stop, lest you weary of
me.

The Merman.

Who would be
A merman bold,
Sitting alone,
Singing alone
Under the sea,
With a crown of gold,
On a throne?

I would be a merman bold,
I would sit and sing the whole of the day;
I would fill the sea-halls with a voice
of power;
But at night I would roam abroad and
play
With the mermaids in and out of the
rocks,
Dressing their hair with the white sea-
flower;
And holding them back by their flow-
ing locks;
I would kiss them often under the sea,
And kiss them again till they kissed me
Laughingly, laughingly;
And then we would wander away, away
To the pale green sea groves straight
and high,
Chasing each other merrily.

There would be neither moon nor star;
But the waves would make music above
us afar—

Low thunder and light in the magic
night—

Neither moon nor star.
We would call aloud in the dreamy dells,
Call to each other and whoop and cry
All night, merrily, merrily;
They would pelt me with starry
spangles and shells,
Laughing and clapping their hands
between,

All night, merrily, merrily:
But I would throw to them back in mine
Turkis and agate and almondine:
Then leaping out upon them unseen
I would kiss them often under the sea,
And kiss them again till they kiss'd me
Laughingly, laughingly.

Oh! what a happy life were mine
Under the hollow-hung ocean green!
Soft as the moss-beds under the sea;
We would live merrily, merrily.

The Mermaid.

Who would be
A mermaid fair,
Singing alone,
Combing her hair,
Under the sea,
In a golden curl
With a comb of pearl
On a throne?

I would be a mermaid fair;
I would sing to myself the whole of the
day;
With a comb of pearl I would comb my
hair;
And still as I combed I would sing and
say,
"Who is it loves me? Who loves not
me?"

I would comb my hair till my ringlets
would fall

Low adown, low adown,
From under my starry sea-bud crown,
Low adown, and around,
And I should look like a fountain of gold
Springing alone

With a shrill inner sound,
Over the throne

In the midst of the hall;
Till the great sea-snake under the sea,
From his coiled sleeps in the central
deeps

Would slowly trail himself sevenfold
Round the hall where I sate, and look
in at the gate

With the large calm eyes for the love
of me.

And all the mermen under the sea
Would feel their immortality
Die in their hearts for the love of me.

But at night I would wander away,
away,

I would fling on each side my low-flow-
ing locks,

And lightly vault from the throne and
play

With the mermen in and out of the
rocks;

We would run to and fro, and hide and
seek,

On the broad sea-nolls in the crimson
shells,

Whose silvery spikes are nighest the
sea.

But if any came near, I would call and
shriek,

And adown the the steep like a wave I
would leap

From the diamond ledges that jet from
the dells;

For I would not be kiss'd by all who
would list,

Of the bold merry mermen under the
sea;

They would sue me, and woo me, and
flatter me,

In the purple twilights under the sea;
But the king of them all would carry me,

Woo me, and win me, and marry me,
In the branching jaspers under the sea;

Then all the dry pied things that be
In the hueless mosses under the sea

Would curl round my silver feet
silently,

All looking up for the love of me.

And if I should carol aloud, from aloft
All things that are forked, and horned,
and soft

Would lean out from the hollow sphere
of the sea

All looking down for the love of me.

Pictures of Memory.

Among the beautiful pictures
That hang on memory's wall

Is one of a dim old forest,

That seemeth best of all;

Not for its gnarled oaks olden,

Dark with the mistletoe;

Not for the violets golden

That sprinkle the vale below;

Not for the milk-white lilies

That lean from the fragrant ledge,

Coquetting all day with the sunbeams,

And stealing their golden edge;

Not for the vines on the upland,

Where the bright red berries rest,

Nor the pinks, nor the pale sweet cow-
slip,

It seemeth to me the best.

I once had a little brother

With eyes that were dark and deep;

In the lap of that dim old forest

He lieth in peace asleep;

Light as the down of the thistle,

Free as the winds that blow,

We roved there the beautiful summers,

The summers of long ago;

But his feet on the hills grew weary,

And, one of the autumn eves,

I made for my little brother

A bed of yellow leaves.

Sweetly his pale arms folded

My neck in a meek embrace,

As the light of immortal beauty

Silently covered his face;

And when the arrows of sun-set

Lodged in the tree-tops bright,

He fell, in his saint-like beauty,

Asleep by the gates of light.

Therefore of all the pictures

That hang on Memory's wall,

The one of the dim old forest

Seemeth the best of all.

Mother's Room.

I'm awfully sorry for poor Jack Roe;
 He's the boy that lives with his aunt,
 you know,
 And he says his house is filled with
 gloom
 Because it has got no "mother's room."
 I tell you what, it is fine enough
 To talk of "boudoirs" and such fancy
 stuff,
 But the room of rooms that seems best
 to me,
 The room where I'd always rather be,
 Is mother's room, where a fellow can
 rest,
 And talk of things his heart loves best.
 What if I do get dirt about,
 And sometimes startle my aunt with a
 shout;
 It is mother's room, and if she don't
 mind,
 To the hints of others, I'm always
 blind.
 Maybe I lose my things—what then?
 In my mother's room, I find them again.
 And I've never denied that I litter the
 floor
 With marbles, and tops, and many
 things more;
 But I tell you, for boys with a tired
 head,
 It is jolly to rest it on mother's bed.
 Now, poor Jack Roe, when he visits me,
 I take him to mother's room, you see,
 Because it's the nicest place to go
 When a fellow's spirits are getting low.
 And mother, she's always kind and
 sweet,
 And there's always a smile poor Jack
 to greet.
 And somehow the sunbeams seem to
 glow
 More brightly in mother's room, I
 know,
 Than anywhere else; and you'll never
 find gloom
 Or any old shadow in mother's room.

The Uncle at the Circus.

Friday, when the circus comes,
 With its chariots and drums,
 Then we'll see the tall giraffe,
 And the clown that makes us laugh,
 For you know he always can,
 He is such a funny man.
 Then we'll see the great parade,
 Then we'll buy some lemonade,
 And the kind they always drink
 Is so beautifully pink.
 I should really like to know
 How and why they make it so.

Father says he used to go
 To the circus years ago;
 Doesn't care about it now;
 Only goes to save a row.
 Nothing there he wants to see;
 Goes because it pleases me.
 Mother, she dislikes it, too;
 Only goes because I do.
 Uncle John will go with us
 (Seems to me it's curious);
 Says he's going for my sake;
 Sure he can not keep awake.
 Aunt Jane says she'll come along,
 Though perhaps it may be wrong;
 But she thinks I ought to see
 Things in natural history.

Uncle James will go alone;
 Doesn't like to chaperone.
 Says he simply means to go
 Because he wants to see the show.
 —*Boston Transcript.*

A Song For New Years Eve.

Stay yet, my friend, a moment stay—
 Stay till the good old year,
 So long companion of our way,
 Shakes hands, and leaves us here.
 Oh stay, oh stay,
 One little hour, and then away.
 The year, whose hopes were high and
 strong,
 Has now no hopes to wake;
 Yet one hour more of jest and song
 For his familiar sake.
 Oh stay, oh stay,
 One mirthful hour and then away.
 The kindly year, his liberal hands
 Have lavished all his store.
 And shall we turn from where he stands
 Because he gives no more?
 Oh, stay, oh, stay
 One grateful hour, and then away.
 Days brightly came and calmly went,
 While he was yet our guest,
 How cheerfully the week was spent!
 How sweet the seventh day's rest!
 Oh stay, oh stay,
 One golden hour and then away.
 Dear friends were with us, some who
 sleep
 Beneath the coffin lid;
 What pleasant memories we keep
 Of all they said and did!
 Oh stay, oh stay,
 One tender hour, and then away.
 Even while we sing, he smiles his last,
 And leaves our sphere behind;
 The good old year is with the past;
 Oh be the new as kind!
 Oh stay, oh stay,
 One parting strain, and then away.

Lilian.

Airy, fairy Lilian,
Flitting, fairy Lilian,
When I ask her if she love me,
Clasps her tiny hands above me,
Laughing all she can;
She'll not tell me if she love me,
Cruel little Lilian.

When my passion seeks
Pleasance in love sighs,
She looking thro' and thro' me
Thoroughly to undo me,
Smiling never speaks.
So innocent-arch, so cunning simple,
From beneath her gathered wimple
Glancing with black-beaded eyes,
Till the lightning laughs dimple
The baby-roses in her cheeks;
Then away she flies.

Prithee weep, May Lilian!
Gayety without eclipse
Wearieth me, May Lilian:
Through my very heart it thrilleth
When from crimson-threaded lips
Silver-treble laughter trilleth:
Prithee weep, May Lilian.

Praying all I can.
If prayers will not hush thee,
Airy Lilian,
Like a rose-leaf I will crush thee
Fairy Lilian.

The Queer Mother.

Six downy chickens
Standing in a row,
Homeless little orphans
Know not where to go.
Who had killed their mother?
That I cannot say;
But I know they found her
At five o'clock that day.

"Peep!" said the oldest,
"Peep!" the others cried,
And to wake their mother
All in vain they tried.
Susie heard them calling,
Ran to ask them why;
And her eyes that moment
Made their own reply.

Tender-hearted Susie
Tried to hide a tear;
Saw her mother's hennery
Standing empty near;
In it placed the chickens,
And above them spread
A nice, warm feather duster
When they went to bed.

Questions for Debate.

1. Which was the greater man, Oliver Cromwell or Napoleon Bonaparte?
2. Was the execution of Mary, Queen of Scots, justifiable?
3. Has the invention of gunpowder been of benefit to mankind?
4. Which is the more valuable member of society a great mechanician, or a great Poet?
5. Which is the more despicable character, the hypocrite or the liar?
6. Has the fear of punishment, or the hope of reward, the greater influence on human conduct?
7. Is corporal punishment justifiable?
8. Should emulation be encouraged in education?
9. Which was the greater poet, Milton or Homer?
10. Is military renown a fit object for ambition?
11. Is ambition a vice or a virtue?
12. Has novel-reading a moral tendency?
13. Is the character of Queen Elizabeth deserving of our admiration?
14. Is England rising or falling as a nation?
15. Has nature or education the greater influence in the formation of character?
16. Which is the more valuable metal, gold or iron?
17. Is war in any case justifiable?
18. Has the discovery of America been beneficial to the world?
19. Can any circumstances justify a departure from truth?
20. Is sporting justifiable?
21. Does not virtue necessarily produce happiness, and does not vice necessarily produce misery in this life?
22. From which does the mind gain more knowledge, reading or observation?
23. Have the gold mines of Spain, or the coal mines of England, been more beneficial to the world?
24. Which was the greater general, Hannibal or Alexander?
25. Which was the greater poet, Dryden or Pope?

26. Is an advocate justified in defending a man whom he knows to be guilty of the crime with which he is charged?

27. Is it likely that England will sink into the decay which befell the nations of antiquity?

28. Are Lord Byron's writings moral in their tendency?

29. Do the mechanicians of modern times equal those of ancient times?

30. Which is the greater civilizer, the statesman or the poet?

31. Which is the greater writer, Charles Dickens or Lord Lytton?

32. Is the use of oaths for civil purposes expedient?

33. Is a classical education essential to an American gentleman?

34. Are colonies advantageous to the mother country?

35. Which does the most to produce crime--poverty, wealth or ignorance?

36. Is the unanimity required from juries conducive to the attainment of the ends of justice?

37. Is it not the duty of a government to establish a system of national education?

38. Are the intellectual faculties of the dark races of mankind essentially inferior to those of the white?

39. Is solitary confinement an effective punishment?

40. Should not all punishment be reformatory?

41. Is a limited monarchy like that of England the best form of government?

42. Is not private virtue essentially requisite to greatness of public character?

43. Is eloquence a gift of nature, or can it be acquired?

44. Is genius an innate capacity?

45. Is a rude or a refined age the more favorable to the production of works of imagination?

46. Is there any standard of taste?

47. Ought Pope to rank in the first class of poets.

48. Has the invention of machinery been generally beneficial to mankind.

49. Which produce the greater happiness, the pleasures of hope or of memory?

50. Is the existence of parties in a state favorable to the public welfare?

51. Is there any ground for believing in the ultimate perfection and universal happiness of the human race?

52. Is co-operation more adapted to promote the virtue and happiness of mankind than competition?

53. Was banishment of Napoleon to St. Helena a justifiable proceeding?

54. Ought persons to be excluded from civil offices on account of their religious opinions?

55. Which exercises the greater influence on the civilization and happiness of the human race, the male or female mind?

56. Which did the most to produce the French revolution, the tyranny of the government, the excesses of the higher orders or the writings of Voltaire, Montesquieu and Rousseau?

57. Which was the greater poet, Byron or Burns?

58. Is there reasonable ground for believing that the character of Richard the Third was not so atrocious as is generally supposed?

59. Does happiness or misery preponderate in this life?

60. Should the press be totally free?

61. Do modern geological discoveries agree with the Holy Writ?

62. Did circumstances justify the first French Revolution?

63. Could not arbitration be made a substitute for war?

64. Which character is the more to be admired, Loyola or Luther?

65. Which was the greater poet, Chatterton or Cowper?

66. Are public or private schools to be preferred?

67. Is the system of education pursued at our universities in accordance with the requirements of the age?

68. Is the decline of slavery in Europe attributable to moral or economical influences?

69. Is anger a vice or a virtue?

70. Which was the greatest hero, Alexander, Cæsar, or Bonaparte?

71. Which was the worse monarch, Richard the Third or Charles the Second?

72. Which was the greater man, Franklin or Washington?

73. Is it probable that America will hereafter become the greatest of nations?

74. Should not greater freedom of expression be encouraged in debate?

75. Which was the greater poet, Chaucer or Spenser?

76. Is the present a poetical age?

77. Was Louis XIV a great man?

78. Is it the duty of the government to make ampler provisions for the literary writers of the nation?

79. Which is the greater poet, Mrs. Howitt or Mrs. Hemans?

80. Should not all national works be entirely free to the public?

81. Are not the rudiments of individual character discernable in childhood?

82. Is not satire highly useful as a moral agent?

83. Has not the faculty of humor been of essential service to civilization?

84. Is it not to emigration that England must mainly look for the relief of her population?

85. Does national character descend from age to age?

86. Do the associations entitled "Art Unions" tend to promote the spread of the fine arts?

87. Is it possible that the world will ever again possess a writer as great as Shakespeare?

88. Is the cheap literature of the age on the whole beneficial to general morality?

89. Should not practice in athletic games form a part of every system of education?

90. Is not the game of chess a good intellectual and moral exercise?

91. Have mechanics' institutions answered the expectations of their founders?

92. Which is to be preferred, a town or a country life?

93. Which was the greater poet, Wadsworth or Byron?

94. Which is the more baneful, skepticism or superstition?

95. Is life assurance at present conducted on safe and equitable principles?

96. Are there good reasons for supposing that the ruins recently discovered in Central America are of very great antiquity?

97. Do titles operate beneficially in a community.

98. Would not pulpit oratory become more effective if the clergy were to preach extemporaneously.

99. Is not intemperance the chief source of crime?

100. Should not the study of history be more encouraged than it is?

Conundrums.

1. Where was Humboldt going when he was thirty-nine years old?

2. Which is the most ancient of the trees?

3. Which are the most seasonable clothes?

4. Why are lawyers and doctors safe people by whom to take example?

5. What injury did the Lavina of Thompson's "Seasons" do to young Palemon?

6. Why are wooden ships (as compared with iron-clads) of the female sex?

7. At what time of life may a man be said to belong to the vegetable kingdom?

8. Which are the lightest men--Scotchmen, Irishmen or Englishmen?

9. Which are the two hottest letters of the alphabet?

10. Why is cutting off an elephant's head widely different from cutting off any other head?

11. Who is the man who carries everything before him?

12. Which are the two kings that reign in America?

13. When may a man's pocket be empty and yet have something in it?

14. Why is a clock the most modest piece of furniture?

15. Why is U the gayest letter in the alphabet?

16. Why are corn and potatoes like Chinese idols?

17. Which is the merriest sauce?

18. Why is a cat going up three pair of stairs like a high hill?

19. Why is a lead pencil like a perverse child?

20. Why is a horse like the letter O.

21. Why are pen-makers inciters of wrong-doing?

22. Why should we never sleep in a railway carriage?

23. When is a boat like a heap of snow?

24. What 'bus has found room for the greatest number of people?

25. Who is the first little boy mentioned by a slang word in the history of England?

26. Why is Macassar oil like a chief of the Fenians?

27. Why is a nabob like a beggar?

28. What sort of day would be good for running for a cup?
29. What is the difference between a spendthrift and a feather bed?
30. Is there any bird that can sing "The Lays of Ancient Rome?"
31. What have you to expect at a hotel?
32. What comes after cheese?
33. When does a man sit down to a melancholy dessert?
34. What notes compose the most favorite tunes, and how many tunes do they compose?
35. When may a man be said to breakfast before he gets up?
36. Why is a hotel waiter like a race horse?
37. When is the soup likely to run out of the sauce-pan?
38. What is the word of five letters, of which, when you take away two, only one remains?
39. When are volunteers not volunteers?
40. Why is the letter B like a fire?
41. Why is the letter R a profitable letter?
42. What word may be pronounced quicker by adding a syllable to it?
43. What is the difference between a dairy-maid and a swallow?
44. What animal has the most property to carry with him when he travels, and which two have the least?
45. How many sticks go to the building of a crow's nest?
46. Why was Robinson Crusoe not alone on his desert island?
47. Why are there no eggs in St. Domingo?
48. What is invisible blue?
49. Which is the most wonderful animal in the farm-yard?
50. Which peer wears the largest hat?
51. When does beer become eatable?
52. Why is a patent safety Hansom cab a dangerous carriage to drive in?
53. Why are bakers very self-denying people?
54. Why is whispering in company like a forged bank-note?
55. Which constellation resembles an empty fire-place?
56. What is the best remedy for a smoky chimney?
57. What relation is that child to its father, who is not its father's own son?
58. When does a cow become real estate?
59. Why are dissenters like spiders?
60. Why did Marcus Curtius leap into the gulf in Rome?
61. Why is a soldier like a vine?
62. Which is heavier, a half or a full moon?
63. When should you avoid the edge of the river?
64. Why must a fisherman be very wealthy?
65. If the fender and fire-irons come to three pounds, what will a ton of coal come to?
66. Why are the fourteenth and fifteenth letters of the alphabet of more importance than the others?
67. What is the way to make your coat last?
68. Why is an alligator the most deceitful of animals?
69. Why is it impossible that there should be a best horse on the race course?
70. Why are fowls the most economical creatures that farmers keep?
71. When may a ship be said to be in love?
72. What relation is the door-mat to the scraper?
73. What vegetable most resembles little Fanny's tongue?
74. Why is goose-berry jam like counterfeit money?
75. What is that which has never been felt, seen or heard, never existed, and still has a name?
76. Why is a congrave-box without matches superior to all other boxes?
77. Why is a postman in danger of losing his way?
78. What is that which comes with a coach, goes with a coach, is of no use to the coach, and yet the coach cannot go without it?

79. If your uncle's sister is not your aunt, what relation does she bear to you?

80. When is a sailor not a sailor?

81. Why does a duck put its head under water?

82. What tree is of the greatest importance in history?

83. Why would a pelican make a good lawyer?

84. What precious stone is like the entrance to a field?

85. When is a man like frozen rain?

86. Which of the stars would be subject to the game laws?

87. When does the cook break the game laws?

88. When is a bill not a bill?

89. What pen ought never to be used for writing?

90. Why is the letter W like the Queen's ladies?

91. What tune makes everybody glad?

92. When is a straight field not a straight field?

93. Why is a fish hook like the letter F?

94. If the Greeks had pushed Pan into the Bay of Salinus, what would he have been when he came out?

95. When is a lady's arm not a lady's arm?

96. What is that which occurs once in a minute, twice in a moment, and not once in a hundred years?

97. What is that which has a mouth but never speaks, a bed, but never sleeps in it?

98. What word contains all the vowels in their proper order?

99. Why is I the happiest of all the vowels?

100. How does a boy look if you hurt him?

Answers. 1. Into his fortieth year.

2. The elder tree.

3. Pepper and Salt.

4. Because they practice their professions.

5. She pulled his ears and trod on his corn.

6. Because they are the weaker vessels.

7. When long experience has made him sage.

8. Englishmen. In Scotland there are men of Ayr (air), in Ireland men of Cork; but in England there are lightermen.

9. K. N. (Cayenne.)

10. Because when you separate the head from the body you don't take it from the trunk.

11. The footman.

12. Smo-king and soa-king.

13. When it has a hole in it.

14. Because it covers its face with its hands, and runs down its own works.

15. Because it is always in fun.

16. Because they have ears which do not hear, eyes which cannot see.

17. Caper sauce.

18. Because she's a mountain.

19. It never does right (write) of itself.

20. Because Gee (g) makes it go.

21. Because they make people steal (steel) and say they do right (write.)

22. Because the train always runs over sleepers.

23. When it is a-drift.

24. Columbus.

25. Chap. I.

26. Because it is a head (s) center.

27. He is an India gent (indigent.)

28. A muggy day.

29. One is hard up and the other soft down.

30. Yes; there are Macaw-lays.

31. Inn-at ention.

32. Mouse.

33. When he sits down to wine (whine) and pine.

34. Bank notes, and they make (four) fortunes.

35. When he takes a roll in bed.

36. Because he runs for cups, plates and stakes (steaks.)

37. When there's a leek (leak) in it.
38. Stone.
39. When they are mustered (mustard.)
40. It makes oil, boil.
41. Because it makes ice into rice.
42. Quick.
43. One skims milk, and the other skims water.
44. The elephant the most, because he carries a trunk. The fox and the cock the least, because they have only a brush and a comb between them.
45. None, they are all carried to it.
46. Because there was a heavy swell on the beach, and a little one running up into the land. (This riddle is a slang one.)
47. Because they banished the whites and cast off their yoke (yolk.)
48. A policeman when he is wanted.
49. A pig, because he is killed first and cured afterward.
50. The one who has the largest head.
51. When it is a little tart.
52. Because the cabman always drives over your head.
53. Because they sell what they knead (need) themselves.
54. Because it is uttered but not allowed (aloud.)
55. The Great Bear (grate bare.)
56. Putting the fire out.
57. His daughter.
58. When she is turned into a field.
59. Because they are in-sects
60. Because he thought it a good opening for a young man.
61. Because he is listed, trained, has ten drills (tendrils), and shoots.
62. The half, because the moon is as light again.
63. When the hedges are shooting and the bull-rushes out.
64. Because his is all net profit.
65. Ashes.
66. Because we cannot get on (O N) well without them.
67. To make your waist-coat first.
68. Because he shows an open countenance in the act of taking you in.
69. Because there's always a better.
70. Because for every grain they eat, they give a peck.
71. When she wishes for a mate.
72. A step-father (farther.)
73. A scarlet runner.
74. Because it is not current (current.)
75. Nothing.
76. It is matchless.
77. Because he is guided by the directions of strangers.
78. A noise.
79. She is your mother.
80. When he is a-loft.
81. For divers reasons.
82. The date.
83. He knows how to stretch his bill.
84. A-gate.
85. When he is hale (hail.)
86. Shooting stars.
87. When she poaches eggs.
88. When it is due (dew).
89. A sheep-pen.
90. It is always in waiting.
91. For-tune.
92. When it is a wry (rye) field.
93. It makes an eel feel.
94. A dripping pan.
95. When it is a little bear (bare).
96. The letter M.
97. A river.
98. Facetious.
99. Because it is in bliss while most of the others are in Purgatory.
100. It makes him yell "Oh" (yellow).



Class and Playground

World-Famous Tunnels.

Mount St. Gothard, 48,840 feet long (the longest in the world.)

Mount Cenis, 39,840 feet long.
Hoosac, 25,080 feet long.
Nochistongo, 21,659 feet long.
Sutro, 21,120 feet long.
Riquivel, 18,623 feet long.
Nerthe, 15,153 feet long.
Blaizy, 13,455 feet long.
Thames and Medway, 11,880 feet long.

Statistics of Population of the Earth.

Africa.....	127,000,000
Asia.....	850,000,000
Australasia.....	4,730,000
Europe.....	380,200,000
North America.....	89,250,000
South America.....	36,420,000
Polar.....	300,000
Total.....	1,487,900,000

Capacity of Noted Churches and Halls.

St. Peter's Cathedral.....	Rome.....	54,000
Cathedral of Milan.....	Milan.....	37,000
St. Paul's Church.....	Rome.....	32,000
St. Paul's Cathedral.....	London.....	25,000
Church of St. Petronio.....	Bologna.....	24,000
Cathedral of Florence.....	Florence.....	24,000
Cathedral of Antwerp.....	Antwerp.....	24,000
Mosque of St. Sophia.....	Constantinople.....	23,000
St. John's Lateran.....	Rome.....	22,000
Cathedral of Notre Dame.....	Paris.....	21,000
Cathedral of Pisa.....	Pisa.....	13,000
Church of St. Stephen.....	Vienna.....	12,000
Church of St. Dominic.....	Bologna.....	12,000
Church of St. Peter.....	Bologna.....	11,400
Cathedral of Vienna.....	Vienna.....	11,000
Cathedral of St. Mark.....	Venice.....	7,500
Gilmore's Garden.....	New York.....	8,433
Stadt Theater.....	New York.....	3,000
Academy of Music.....	Philadelphia.....	2,865
Theater Carlo Felice.....	Genoa.....	2,560
Boston Theater.....	Boston.....	2,072
Covent Garden.....	London.....	2,684
Academy of Music.....	New York.....	2,526
Music Hall.....	Boston.....	2,585
Alexander Theater.....	St. Petersburg.....	2,332
Grand Opera.....	Paris.....	2,090
La Scala.....	Milan.....	2,113
St. Charles Theater.....	New Orleans.....	2,178
Opera House.....	New Orleans.....	2,053
Grand Opera House.....	New York.....	1,883
Booth's Theater.....	New York.....	1,807
McVicker's Theater.....	Chicago.....	1,790

Old Glory.

In June, 1776, a committee was appointed by the Continental Congress to design a flag for the new government about to go into operation. Col. Geo. Ross was upon this committee, who, accompanied by George Washington, called upon an upholsterer residing at No. 239 Arch Street, Philadelphia, named Mrs. Ross, to instruct her how to make the new flag. Washington himself made a drawing of the new flag in her parlor, and, while doing this, took some suggestions from her as to its design. She said that the stars should be five pointed instead of six pointed as Washington had made them. This and other changes were accepted by Washington. This ingenious lady made the first flag, and several others afterward, finishing them up in a very artistic and superior manner, entirely satisfactory to those who had the honor of first lifting them to the breeze.

Distances by Water from New York to Foreign Ports.

Port	Country	Miles
Alexandria.....	Egypt.....	5,095
Amsterdam.....	Holland.....	3,530
Bermudas.....	West Indies.....	690
Bombay.....	India.....	11,555
Bordeaux.....	France.....	3,334
Brussels.....	Belgium.....	3,418
Cape of Good Hope.....	Africa.....	6,840
Cape Horn.....	South America.....	7,000
Constantinople.....	Turkey.....	5,154
Copenhagen.....	Denmark.....	3,650
Calcutta.....	India.....	12,510
Canton.....	China.....	14,105
Gibraltar.....	Spain.....	3,290
Glasgow.....	Scotland.....	2,934
Halifax.....	Nova Scotia.....	563
Havana.....	Cuba.....	1,275
Lima.....	Peru.....	11,312
Lisbon.....	Portugal.....	3,184
London.....	England.....	3,376
Liverpool.....	England.....	3,080
Madras.....	British India.....	11,840
Naples.....	Italy.....	4,327
Pekin.....	China.....	15,325
Pernambuco.....	Brazil.....	4,926
St. Johns.....	New Foundland.....	785
St. Petersburg.....	Russia.....	4,432
San Francisco.....	Sandwich Islands.....	7,190
Shanghai.....	California.....	18,843
Stockholm.....	China.....	14,510
Valparaiso.....	Sweden.....	4,075
Vera Cruz.....	Chili.....	4,813
Vienna.....	Mexico.....	2,185
Yokohama.....	Austria.....	4,095
	Japan.....	7,523

Sizes of Books.

The following are the sizes of book paper now in use. The sizes used the old system were so variable that no idea of the size of a book could be gained by the sizes.

Large folio...la. fol...over 18 inches
Folio.....fol....below 18 inches
Small folio...sm. fol...below 13 inches
Large octavo...la. 8 vo...below 11 inches
Octavo.....8 vo...below 9 inches
Small octavo...sm. 8 vo...below 8 inches
Duodecimo....12 mo...below 8 inches
Decimo octavo...18 mo.....is 6 inches
Ninimo.....mo....below 6 inches
Large quarto .la. 4 to...below 15 inches
Quarto.....4 to...below 11 inches
Small quarto..sm. 4 to...below 8 inches

The Solar System.

The Sun is 852,900 miles in diameter, and weighs 750 times as much as the earth, moon and all the planets, asteroids, etc., together, but its substance is much lighter than that of the earth, one cubic foot being only one-fourth as heavy as the same quantity of earth.

Mercury is 35,392,000 miles from the sun. Its year is 37 days, 23 hours, 15 minutes and 46 seconds long, and its day a little more than 24 hours. It is 3,058 miles in diameter; it weighs about $\frac{68}{100}$ as much as the earth, but its substance is $\frac{12}{100}$ heavier than that of the earth.

Venus is 66,134,000 miles from the sun. Its year is 244 days, 16 hours, 49 minutes and 7 seconds long; it turns on its axis once in every 23 hours, 21 minutes and 23 seconds, is 7,510 miles in diameter, weighs about $\frac{89}{100}$ as much as the earth and its substance is $\frac{3}{10}$ heavier than that of the earth.

The Earth is 91,430,000 miles from the sun. It makes a complete revolution around the sun in a year of 365 days, 6 hours, 6 minutes, 10 $\frac{75}{100}$ seconds, turns on its axis once in 23 hours and 56 minutes, is about 7,926 miles in diameter, and weighs 6,069,000,000,000,000,000,000 tons.

The Moon is 238,793 miles from the earth, measuring from center to center. It makes one complete apparent revolution around the earth in 29 days, 12 hours, 44 minutes, 3 seconds, though it requires only 27 days, 7 hours, 43 minutes and 11 $\frac{1}{2}$ seconds to complete its revolution in its orbit. This variation is due to the motion of the earth around the sun. The commonly received "lunar month" is 28 days. The diameter of the moon is $\frac{2729}{10000}$ that of the earth, or 2,153 miles; it turns on its axis in about 27 $\frac{1}{3}$ days; its volume is $\frac{1}{49}$ that of the

earth, or 5,200,100 cubic miles.

Mars is 139,311,000 miles from the sun, and at its nearest point of approach is 34,000,000 miles from the earth. Its diameter is 4,363 miles, it turns on its axis once every 24 $\frac{1}{2}$ hours, makes one revolution around the sun in 687 days, and its substance is $\frac{248}{1000}$ as heavy as that of the earth.

The Asteroids and Minor Planets thus far discovered are 146 in number, and occupy the interval between Mars and Jupiter. They are located at distances varying from 200,000,000 to 315,000,000 miles from the sun, around which they revolve in periods varying from 3 years, 3 months and 17 days, (the period occupied by the asteroid Flora) to 6 years, 3 months and 28 days (the period of Maximiliana). The most important of them, Pallas, is estimated to be 600 miles in diameter, while others are not more than 20 miles, or less.

Jupiter is 475,692 miles from the sun, has four moons, revolves around the sun in about 12 years, is 1,233 times as large as the earth, and its diameter is 85,000 miles. It revolves on its axis in 9 hours, 55 minutes and 26 seconds, and its substance is estimated to be only $\frac{26}{100}$ as heavy, in proportion, as that of the earth. Its four moons are respectively 3,436 miles, 2,929 miles, 2,352 miles and 2,099 miles in diameter, and taken together they would form a body 9 times the size of our moon, and about one-fifth the volume of the earth.

Saturn is 872,137,000 miles from the sun, around which it revolves in 29 years and 167 days; it turns on its axis once every 10 hours, 29 minutes and 17 seconds. Its diameter is about 70,100 miles, and its substance is about $\frac{13}{100}$ as heavy in proportion as that of the earth. It has eight moons, the largest of which, Titan, is about 4,380 miles in diameter. The planet is also surrounded by a series of rings 166,920 miles in diameter.

Uranus is 1,753,869,000 miles from the sun, yet, from its great size, it is sometimes visible to the naked eye. It revolves around the sun once in about every 84 years, is 74 times larger than the earth, and is 32,250 miles in diameter. It is known to have four moons, and is supposed to have eight. Its substance is only one-sixth as heavy, in proportion, as that of the earth.

Neptune is 2,745,998,000 miles from the sun, around which it revolves in about 165 years, and is 37,236 miles in diameter. It has one moon, which revolves around it at a distance of about 220,000 miles. Its substance is only $\frac{1}{45}$ as heavy, in proportion, as that of the earth.

Celestial Survey.

"And he measured the city with the reed, twelve thousand furlongs. The length, and the breadth, and the height of it are equal."—Rev. XXI, 16.

Twelve thousand furlongs, 7,920,000 feet, which being cubed, 496,793 088,000,000,000,000 cubic feet. Half of this we will reserve for the Throne of God and the Court of Heaven, and half the balance for streets, leaving a remainder of 124,198,272,000,000,000 cubic feet. Divide this by 4,090 the cubical feet in a room sixteen feet square, and there will be 30,321,843,750,000,000 rooms. We will now suppose that the world always did and always will contain 990,000,000 inhabitants, and that a generation lasts for $33\frac{1}{3}$ years, making in all 2,970,000,000 every century, and that the world will stand 100,000 years, or 1,000 centuries, making in all 2,970,000,000,000 inhabitants. Then suppose there were 100 worlds equal to this in number of inhabitants and duration of years, making a total of 297,000,000,000,000 persons, and there would be more than 100 rooms sixteen feet square for each persons.

Largest Islands on the Globe.

The Island of New Guinea, or Papua, in the Eastern Archipeligo, has an area of 306,000 square miles.

The Island of Borneo, East Indian Archipeligo, has an area of 289,000 square miles.

The Island of Madagascar, Indian Ocean, has an area of 230,000 square miles.

The Island of Sumatra, East Indian Archipeligo, has an area of 172,250 square miles.

Vondo, (the largest Japanese Islands) has an area of 90,500 square miles.

Great Britain has an area of 83,826 square miles.

The Island of Celebes, Eastern Archipeligo, has an area of 90,000 square miles.

New Zealand, Australasia. The southern island has an area of 55,000 square miles.

The Island of Java, East Indies, has an area of 51,350 square miles.

The Island of Cuba, West Indies, has an area of 47,570 square miles.

New Zealand, Australasia. The northern island has an area of 44,000 square miles.

Luzon, one of the Philippine Islands, has an area of 41,790 square miles.

Newfoundland, North America, has an area of 42,000 square miles.

Iceland has an area of 39,740 square miles.

Mindanao, one of the Philippines, has an area of 32,700 square miles.

Ireland has an area of 32,500 square miles.

Hayti, Hati, or San Domingo, one of the West Indies, has an area of 28,204 square miles.

The Island of Tasmania, Australasia, has an area of 26,215 square miles.

The Island of Ceylon, southeast of India, has an area of 24,474 square miles.

Novia Zemlia, or Nova Zembla, Arctic Ocean. The northern island has an area of 19,353 square miles.

The Island of Trenadel Fuego, South America, has an area of 18,576 square miles.

Novia Zemlia. The southern island has an area of 15,812 square miles.

Height of Noted Monuments and Buildings.

	Feet.
Eiffel Tower, Paris.....	980
Washington Monument.....	555
Pyramid, Cheops, Egypt.....	543
Cathedral, Cologne.....	511
Cathedral, Antwerp.....	476
Cathedral, Strasburg.....	474
Tower, Utrecht.....	464
Steeple, St. Stephen's, Vienna.....	460
Pyramid, Khafras, Egypt.....	456
St. Martin's Church, Bavaria.....	456
Chimney, Port Dundas, Glasgow.....	454
St. Peter's, Rome.....	443
Notre Dame, Amiens.....	442
Salisbury Spire, England.....	406
Cathedral, Florence.....	390
Cathedral, Cremona.....	372
Cathedral, Freiburg.....	367
St. Paul's, London.....	365
Cathedral, Seville.....	360
Pyramid, Sakarrah, Egypt.....	356
Cathedral, Milan.....	355
Notre Dame, Munich.....	348
Invalides, Paris.....	347
Parliament House, London.....	340
Cathedral, Madgeburg.....	337
St. Patrick's, New York.....	328
St. Mark's, Venice.....	328
Cathedral, Bologna.....	321
Cathedral, Norwich, England.....	309
Cathedral, Chichester, England.....	300
Cathedral, Lincoln, England.....	300

Some Elevations of the Globe.

Potosi, a city situated near the central portion

of Bolivia, is 13,120 feet above the sea level.

Nevada Tolima, a peak of the Central Cordilleras, in the United States of Colombia, is 13,092 feet high.

Lake Titicaca, in the Andes, between

Bolivia and Peru, is 12,196 feet above the sea level.

The Itatiaia, in the Sierra Mantiqueira, the highest peak in Brazil is 8,900 feet high, or, according to some authorities, 10,300 feet

Mt. Roraima, situated on the boundary between British Guiana and Venezuela, near the Brazilian frontier, is 7,890 feet high.

The Charles Louis Mountains, east of Sahakia Island, in New Guinea, are supposed to reach a height of 17,000 to 18,000 feet.

Mt. Owen Stanley, in the southern peninsula of New Guinea is 13,205 feet high.

Mauna Kea, a volcano on Hawaii, the largest of the Sandwich Islands, is 13,645 feet high.

Manna Loa, a volcano near the center of the same island, is 3,650 feet high.

Mt. Cook, near the western coast of New Zealand, is 13,200 feet high.

Mt. Erebus, on the Antarctic Continent, is estimated to be 12,369 feet high.

Manna Hulalai, a volcano near the western coast of the Island of Hawaii, is 11,020 feet high.

Mt. Kosciusko, in southeastern Australia, the highest peak on that continent is 7,308 feet high.

Ocean Telegraphy.

There are at present ten submarine cables between Europe and the northern part of this continent. Of these, six start from Valentia, Ireland, two Brest, two from Penzance. The two latter have a connection with Havre and Emden. South America is joined to Europe by two cables from Lisbon to Pernambuco, Brazil. England has two cables to India, one from Bombay over Aden to Alexandria and Marseilles, the other from Falmouth over Gibraltar. Between England and France there are eight cables from Dover to Calais. England is connected by four cables with Germany (Lowestoft-Emden), by two with Norway, two with Holland, one with Lisbon, one with Sweden (Gothenburg), one with Denmark (Londerwig), and one with Belgium (Ostend). English companies also own the cables between Malta and Tripoli, Malta and Sicily, Alexandria and Otranto, Alexandria and Alep, Alexandria and Port Said, Suez and Aden, Swakim and Jeddah,

Madras and Australia over Peuang, and Singapore and Java. From the latter cable a branch goes to Saigon, Hue and Haiphong. In the Sea of China we find the connections, Saigon, Hongkong, Shanghai, etc. Two cables go to Nagasaki in Japan, Corea, Cadiz and Senegal, Aden to the Cape of Good Hope, Australia to New Zealand. France and Algeria have three cables from Marseilles, and another goes to Spain (Barcelona). Russia has connections with Denmark, Sweden, and by Odessa, with Constantinople. The latter cable passes on to Salonica. Austria has a cable from Trieste to Casfu. Of shorter cables may be mentioned that from Otranto to Vallonia (Turkey) and that from Corsica to Sardinia. The Antilles are joined to this continent by a cable from British Guiana. There is also a cable along the Mexican coast, and a second from Mexico to Chili.

All of these are, however, destined to be superseded by Marconi's wireless telegraph system which is nearing perfection. This system forms an effective means of telegraphing between ships hundreds of miles from each other and from land. This is one of the most remarkable inventions of the dawn of the Twentieth Century.

Famous Bridges.

Brooklyn bridge was commenced under the direction of T. Roebling, in 1870, and completed in about thirteen years. It is 3,475 feet long and 135 feet high. The cost of building was nearly \$15,000,000.

The Cantilever bridge, over the Niagara, is built almost entirely of steel. Its length is 910 feet, the total weight is 3,000 tons, and the cost was \$900,000.

The Niagara Suspension bridge was built by Roebling in 1852-55 at a cost of \$400,000. It is 245 feet above water, 821 feet long and the strength is estimated at 1,200 tons.

The bridge at Havre de Grace, over the Susquehanna, is 3,271 feet long, and is divided into twelve wooden spans, resting on granite piers.

The Britannia bridge crosses the Menai strait, Wales, at an elevation of 103 feet above high water. It is of wrought iron, 1,571 feet long, and was finished in 1850; cost \$3,008,000.

The new London bridge is constructed of granite, from the designs of L. Rennie. It was commenced in 1824, and was completed in about seven years at a cost of \$7,291,000.

Principal Rivers IN EUROPE.

The Volga, in Russia, is 2,400 miles long, and drains a basin of 527,000 square miles, empties into the Caspian Sea.

The Danube, in southern Europe, is 1,795 miles long, drains an area of 306,000 square miles, empties into the Black Sea.

The Don, in the southern part of European Russia, is 995 miles long, drains an area of 176,000 square miles, empties into the Sea of Azof.

The Petchora, in the northeastern part of European Russia, is 900 miles long, drains 114,000 square miles of surface and empties into the Arctic Ocean.

The Dnieper, in the southern part of European Russia, is 750 miles long, drains an area of 195,000 square miles, and empties into the Black Sea.

The Rhone, in Switzerland and France, is 645 miles long, drains 37,900 square miles of surface, empties into the Mediterranean.

The Rhine, principally in Germany and Holland, is 600 miles long, drains a basin of 75,000 square miles, empties into the North Sea.

The Elbe, in Germany, is 550 miles long, drains 55,090 square miles of surface, and empties into the North Sea.

The Tagus, in Spain and Portugal, is 540 miles long, drains an area of 33,000 square miles, and empties into the Atlantic Ocean.

The Loire, in France, is 530 miles long, drains 44,500 square miles of surface, and empties into the Bay of Biscay.

The Dniester, in Austro-Hungary and European Russia, is 550 miles long, drains 27,300 square miles of surface, and empties into the Black Sea.

The Po, in northern Italy, is 450 miles long, drains 34,600 square miles of surface, and empties into the Adriatic.

The Oder, in Germany, is 445 miles long, drains 45,200 square miles of surface, and empties into the Baltic.

The Guadiana, between Spain and Portugal, is 400 miles long, drains 25,000 square miles of surface, empties into the Atlantic Ocean.

The Thames, in England, is 215 miles long, drains 6,160 square miles of surface, and empties into the North Sea.

IN ASIA.

The Yenesei, principally in Asiatic Russia, is 3,300 miles long, drains 1,180 square miles of surface, and empties into the Arctic Ocean.

The Yang-ste-Kiang, in China, is 3,300 miles long, drains 722,000 square miles of surface, and empties into the Yellow Sea.

The Obi, in Asiatic Russia, is 2,800 miles long, drains a surface area of 1,400,000 square miles, and empties into the Arctic Ocean.

The Amur, or Amoo, is in northern China, is 2,800 miles long, drains an area of 807,000 square miles, and empties into the Sea of Okhotsk.

The Lena, in Siberia, is 2,600 miles long, drains a surface of 1,000,000 square miles, and empties into the Arctic Ocean.

The Hoang-Ho, or Yellow River, in China, is 2,600 miles long, drains an area of 387,000 square miles, empties into the Yellow Sea.

The Brahmaputra, in India and Thibet, is 2,000 miles long, drains an area of 370,000 square miles, and empties into the Gulf of Bengal.

The Indus, principally in northwestern India, is 1,980 miles long, drains a surface area of 370,000 square miles, and empties into the Arabian Sea.

The Euphrates, in Asia Minor, is 1,305 miles long, drains a basin 259,000 square miles in area, and empties into the Persian Gulf.

The Ganges, in northwestern India, is 1,300 miles long, drains a basin 432,500 miles in area, and empties into the Gulf of Bengal, through numerous mouths.

The Amu Dana, (anciently known as the Oxus) principally in Russian Turkistan, is 1,300 miles long, and empties into the Aral Sea.

The Mekong, or Makiang, in Siam, is 1,250 miles long, drains an area of 216,000 square miles, and empties into the China Sea.

The Tigris, in Asia Minor, is 1,150 miles long, and flows parallel with the Euphrates, at an average distance of 100 miles, and unites with it 120 miles from their common mouth. Its basin is included in that of the Euphrates as given above.

The Syr-Daria, or Jaxartes, in Russian Central Asia, is 800 miles long, drains an area of 237,920 square miles, and empties into the Aral Sea.

IN AFRICA.

The Congo, principally in lower Guinea and Congo State, is 2,900 miles long, drains an area of 1,300,000 square miles and empties into the Atlantic Ocean.

The Nile Rivers, principally in Egypt, have a total length of 2,400 miles, drain an area of 1,085,000 square miles, and empty into the Mediterranean.

The Niger, or Inorra, principally in the Soudan and Guinea, is 2,300 miles long, drains an area of 900,000 square miles, and empties into the Gulf of Guinea.

The Zambesi, or Seeambye, in southern Africa, is 1,400 miles long, drains an area of 500,000 square miles, and empties into the Mozambique Channel.

The Orange, which forms the principal northern boundary of Cape Colony, is 1,000 miles long, drains an area of 418,000 square miles, and empties into the Atlantic Ocean.

The Limpopo, Omo, or Pembe, forming the principal boundary between the Transvaal and Bechuana Land, is 990 miles long, drains an area of 216,000 square miles, and empties into the South Indian Ocean.

The Senegal, forming the northern and eastern boundaries of Senegambia, in northwestern Africa, is 900 miles long, drains an area of 170,000 square miles, and empties into the Atlantic Ocean.

The Shari, in the western Soudan, is 810 miles long, drains a surface area of 300,000 square miles, and empties into Lake Tchad.

The Gambia, in Senegambia, northwestern coast, is 650 miles long, drains an area of 30,000 square miles, and empties into the Atlantic Ocean.

IN AMERICA.

The Mississippi, with its tributary, the Missouri, extending from western Montana to southern Louisiana, is 4,500 miles long, drains an area of 1,250,000 square miles, and empties into the Gulf of Mexico.

The Winnipeg, with its continuation through Lake Winnipeg, and the Nelson, in Manitoba and the Northwest Territory, Dominion of Canada, is 3,840 miles long, drains an area of 486,500 square miles of territory, and empties into Hudson's Bay.

The Amazon, in northern Brazil, is 3,750 miles long, drains an area of 2,275,000 square miles, and empties into the Atlantic Ocean.

The Rio-de-le-Plata, forming the principal eastern boundary of the Argentine Republic, is 2,300 miles long, drains an area of 1,242,000 square miles, and empties into the Atlantic Ocean.

The Mackenzie, in the western part of the Northwest Territory, Dominion of Canada, is 2,300 miles long, drains a basin of 590,000 square miles, and empties into the Arctic Ocean.

The St. Lawrence, principally in the southern part of the Province of Quebec, Canada, is 2,000 miles long, drains an area of 410,000 square miles, and empties into the Gulf of St. Lawrence.

The Rio Grande del Norte, which forms the southern boundary of Texas, is 1,400 miles long, drains an area of 245,000 square miles, and empties into the Gulf of Mexico.

The San Francisco, in the eastern part of Brazil, is 1,300 miles long, drains an area of 187,200 square miles, and empties into the Atlantic Ocean.

The Orinoco, in Venezuela, is 1,200 miles long, drains an area of 400,000 square miles, and empties into the Atlantic Ocean.

The Columbia, principally in Washington Territory, United States, is 1,020 miles long, drains an area of 298,000 square miles and empties into the Pacific Ocean.

The Colorado, principally in the southwestern Territories of the United States, is 1,000 miles long, drains an area of 250,000 square miles, and empties into the Gulf of California.

IN AUSTRALIA.

The Murray, or Goolwa, with the Darling or Callewalt, principally in New South Wales and South Australia, is 2,000 miles long, drains an area of 500,000 square miles, and empties into the Indian Ocean.

ED. STROPEL.

CHAS. STROPEL.

STROPEL BROTHERS,



— DEALERS IN —

FURNITURE, Picture Framing and Go-Carts.

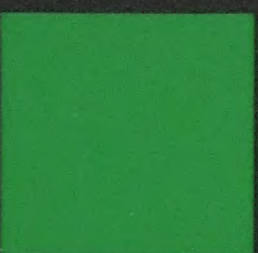
Undertakers and Agents for Monuments.

Hacks for Weddings and Parties,
also Ambulance Service attended
to promptly. ❀❀❀❀

Old 'Phone, Store 'Phone 1 on 11, Residence, 3 on 11. New 'Phone,
Residence 'Phone No. 11, Store 'Phone No. 313, Wareroom No. 208.

130 West Main St., LANCASTER, OHIO.

datacolor



STROPEL BROS.

Almanac

FOR

0 inch

1

2

3

4

5

30

29

28

27

26

25

24

23

22

21

20

19

18

17

16

WE

EMBRACING

THE DAYS, WEEKS AND MONTHS OF THE YEAR,
TOGETHER WITH THE CHANGES OF THE SEASONS

AND

A Condensed Cyclopedia of Useful
and Entertaining Information